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Material Culture of the Blackfoot (Blood) Indians of Southern Alberta

James W. VanStone

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Morris, J. 1948. The historic tribes of Ecuador, pp. 785-821. In Steward, J. H., ed., Handbook of South American Indians, Vol. 2, The Andean Civilizations. Bulletin 143, Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

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Material Culture of the Blackfoot (Blood) Indians of Southern Alberta

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Material Culture of the Blackfoot (Blood) Indians of Southern Alberta

James W. VanStone

Abstract

The collections of the Field Museum of Natural History contain 168 ethnographic objects collected among the Blackfoot (Blood) Indians of southern Alberta by John M. Maclean for the World's Columbian Exposition in 1893 and George A. Dorsey in 1897. The artifacts in these collections are described and illustrated. For comparative purposes, information is included from previous studies of the Blackfoot, notably those of Wissler (1910) and Ewers (1939, 1945, 1958).

I. Introduction

The Blood

The Blood Indians are part of the Blackfoot nation, which in historic times has consisted of three politically independent tribes: the Pikuni or Piegan, the Kainah or Blood, and the Siksika or Northern Blackfoot. The three tribes speak the same Algonkian language, shared most of the same customs, intermarried, and made war on common enemies. Although at one time the Blackfoot were probably one tribe, the separate units were recognized by the earliest explorers of the northern plains, where these Indians inhabited a vast area from the upper Missouri River to the North Saskatchewan River in Alberta.

Because the Blackfoot speak an Algonkian language, they are related to forest-dwelling tribes east of the Plains and may have occupied the western frontier of the eastern woodlands before moving out onto the Plains. The earliest traditions suggest that the Northern Blackfoot lived along the North Saskatchewan River, the Blood along the Red Deer River, and the Piegan on the Bow River, all in what is now the province of Alberta (fig. 1). Pressure from the Plains Cree and Assiniboine pushed them south until the Northern Blackfoot were on the Bow, and the Blood and Piegan in extreme southwestern Alberta, the latter extending into Montana. At the present time the tribes live on four reservations, one in Montana and the others in Alberta.

Most of the Blackfoot country was short-grass high plains, but the Indians also hunted on the eastern margins and foothills of the Rocky Mountains. They were buffalo hunters and horse raiders, traveling in loosely organized bands consisting frequently of close relatives but whose essential purposes were economic and political. Hostile tribes surrounded the Blackfoot, and warfare was continuous on the western plains until the reserve period. The three Blackfoot tribes were closely allied in warfare with the Sarsi and Gros Ventre (Ewers, 1958, pp. 5–6; McMillan, 1988, pp. 137–139).

In the early 18th century the Blackfoot received horses, probably as gifts from the Flathead, Kutenai, Nez Perce, or Gros Ventre. It was during this century that the Blackfoot developed their pattern of acquiring horses by capture, a practice that continued until the disappearance of the buffalo (Ewers, 1955, p. 19).

It is probable that a few Blood Indians visited York Factory on Hudson Bay as early as the summer of 1715 and some Blood continued to make the trip during the early decades of the 18th century. Those who did always arrived in the company of Assiniboine and Cree, suggesting that they may not have been permitted to do so without

such an escort. By 1740 the spread of horses northward resulted in an increasingly grassland orientation of the Blood, and this meant that some bands would no longer have been able to make the trip to the Bay since they had given up the use of canoes. Also, because the Blood had to travel such great distances to reach Hudson Bay, they were unable to carry sufficient provisions in their canoes to supply themselves for the trip in two directions. In 1762 some Indians starved to death on the way home and the Blood apparently did not return to York Factory after that date (Ray, 1974, pp. 53, 55, 59–61).

In addition to the arduous travel required to reach Hudson Bay, there is no doubt that the economic self-sufficiency provided by the great herds of buffalo was instrumental in discouraging involvement of the Blood in the fur trade. Anthony Hendry, the first white man to visit them in 1754, was unsuccessful in persuading the Blood to move eastward and hunt beaver or to send young men with furs to trade at the Bay. The Blood viewed trapping unfavorably, and when trading posts reached their country at the end of the 18th century, trade was confined primarily to buffalo hides and dried meat (Goldfrank, 1945, p. 4; Lewis, 1942, p. 34; Ewers, 1958, pp. 24–25).

The Blood, Piegan, Northern Blackfoot, Sarsi, and Assiniboine all suffered heavy losses from the smallpox epidemic of 1837–1838. In 1863 Palliser estimated the Blood population at 2,800. Another smallpox epidemic during the summer of 1869 reduced that figure to approximately 2,000 (Ray, 1974, pp. 188–191). In 1899, shortly after the ethnographic collection described in this study was made, the Blood numbered approximately 1,300 (Wissler, 1936, p. 11).

When the Blood signed Treaty No. 7 with the Canadian government in 1877, they were given a reserve equivalent in size to 128 acres of land per person along the Bow River. This reserve was selected by the Blood and other signatories for its hunting potential because, at that time, buffalo were still plentiful. By 1880, however, the buffalo economy was gone and many Indians were starving. In that year the Blood chiefs asked for and received a new reserve in the foothills of the Rocky Mountains between the Belly and St. Mary's rivers west of Lethbridge. At that time 800 Blood Indians were camped around Fort Macleod receiving daily rations. The remainder of the tribe was in Montana attempting to survive by following the remaining buffalo herds. A few families moved onto the new reserve and built rough log houses to replace their lodges. In the spring of 1881 those Blood in Montana returned, and by 1882 most of the Indians had accepted their new way of life as farmers. A new treaty was signed with the head men of the band in 1883 and ratified in Ottawa two years later. The Blood Reserve, the largest in Canada, runs in a southerly direction from the forks of the Belly and St. Mary's rivers for about 40 miles to within 14 miles of the International Boundary. It covers 540 square miles or 354,000 acres (Goldfrank, 1945, p. 13; Dempsey, 1953, pp. 27–30, 1972, pp. 104–106).

George Dorsey as Collector

George A. Dorsey joined the staff of the Field Columbian Museum (later the Field Museum of Natural History) in 1896 as curator of anthropology. During his first 10 years at the museum, he concentrated on building the North American Indian collections, an effort accomplished through a series of expeditions that he undertook himself or entrusted to various assistant curators. Dorsey firmly believed in concentrating money and energy in selected locations to "fill the gaps" in collections acquired from the World's Columbian Exposition in 1893.

Dorsey's views on collecting are evident in his correspondence with various field-workers sent out under his direction. In 1901 when Stephen Simms was doing fieldwork in Arizona, he was advised to "clean up" reservations and told that "when you cannot get stuff, get information." A "clean sweep" was important for Simms because Dorsey did not believe that the region was worth a second trip when so many other areas were poorly represented in the museum's collections (Field Museum of Natural History, Dept. of Anthropology, Correspondence Files [DA/CF], Dorsey to Simms, February 2, 1901).

Two weeks later, Dorsey gave Simms the benefit of more of his views concerning the role of the field collector:

> The fact that it costs you thirty days to make a trip to find six Indians among which you cannot possibly spend more than $10.00 does not by any means mean that you should not make the trip. On the contrary we often find [it] a most advantageous expenditure [of time and money]. What you pay for the specimen is not what it is worth when it is laid down here in the Museum. The extensions of the idea of our knowledge concerning the artifact or instrument or game may be worth more than money paid, although to make this extension you may have to spend $30 or $40 in personal travel expenses

and perhaps not more than $5 for purchase. (DA/CF, Dorsey to Simms, February 15, 1901)

Dorsey was somewhat less concerned with the research aspects of fieldwork than he was in collecting for exhibit purposes. He insisted, however, that the collections made by his colleagues be well documented. In March 1901 he wrote as follows to John W. Hudson, who was collecting in California:

> Let me warn you again that part of your expedition, and by no means the least important, is the gathering of information. Stay with your Indians until you have collected a sufficient amount of information to enable you not only to label the specimen in the museum here, but to describe it, make its use, its history, origin, material, etc. available in a scientific journal . . . (DA/CF, Dorsey to Hudson, March 5, 1901)

Although over the years Dorsey expressed similar views on ethnographic collecting to a number of colleagues and field-workers (see Rabineau, 1981, p. 34), these two quotations contain the essence of his philosophy regarding collecting methodology and the documentation of collections.

The letters quoted above were written when Dorsey had been on the staff of the Field Columbian Museum for five years. In 1897, the year after taking up his post, he made his first field trip for the museum. On May 12 of that year, he and Edward Allen, the museum's photographer, left Chicago on a four-month trip that included visits to the Blackfoot (Blood), Kutenai, Flathead, Haida, Tsimshian, Hopi, and Zuni reservations. The purpose of this expedition was "to secure ethnological and physical anthropological material for the building of groups which would adequately portray the culture stages and physical characteristics of these tribes" (Field Columbian Museum, 1897, pp. 186–188).

Dorsey and Allen were on the Blood Reserve for six days, from May 20 to May 25, and the collection assembled was the most comprehensive acquired on the expedition. While working on the reserve, Dorsey apparently stayed with Robert N. Wilson, a former mounted policeman and trader who the following year became Indian Agent for the Piegan Agency west of the Blood and returned to the Blood Agency in 1904. Four objects in Dorsey's collection were presented by Mr. Wilson.

II. The Collection

In the catalog of the Department of Anthropology, Field Museum of Natural History, the Dorsey collection of Blood ethnographic artifacts (accession 524) is assigned 131 numbers representing 136 objects. Paired objects such as moccasins, leggings, rosettes, beaded decorative strips, and groups of identical artifacts (i.e., arrows) have one number and are counted as single artifacts. At the time this study was begun, four artifacts, represented by the same number of catalog numbers, could not be located in storage or on exhibit; they have apparently been lost.

Also included in this study is a small collection from the Blood Reserve received from the Rev. John M. Maclean (1851–1928), a Methodist missionary, for the World's Columbian Exposition, in 1893 (accession 28). Maclean served his church on the Blood Reserve from 1880 to 1889 and then took up regular pastoral work in Saskatchewan and Manitoba (Morgan, 1912, p. 708; Nix, 1977, p. iv). In the catalog Maclean's collection is assigned 42 numbers representing the same number of artifacts. Ten objects could not be located. Four of these had been sold and the others apparently lost. Except for its provenience, this collection is undocumented.

The fact that Dorsey's expedition to the Blood Reserve was his first for the museum may explain why he apparently failed to follow the collecting advice that he gave to other field-workers several years later. Each object purchased from the Indians was recorded in a small notebook together with the price paid. There is, however, no further documentation with the exception of brief comments concerning the designs on a single drum head.

Artifacts in the Dorsey and Maclean collections are described within the following nine use categories: shelter, subsistence, tools, transportation, household equipment, clothing, clothing ornamentation, personal adornment, and ceremonial equipment (see appendix for catalog numbers). Descriptions of the artifacts that follow should be read while examining the accompanying photographs. For comparisons I have relied heavily on Wissler's and Ewers' publications, although other ethnographic accounts are, of course, cited when relevant.

Shelter

Like other Plains Indians, the Blackfoot lived in skin-covered tipis, the construction of which is described in detail by Wissler (1910, pp. 99–108). Characteristic features of Blackfoot tipis were the larger-than-life-size painted representations of an-

imals and birds on the outer surfaces of the covers. These portrayals were regarded by a tipi's owner as the sources of his supernatural powers and they were painted in accordance with instructions he received in dreams or visions (Ewers, 1958, p. 114).

According to Ewers (1958, p. 115), most painted tipi covers, in addition to the animal and bird figures, had geometric designs painted in two areas. There was a banded area at the bottom, usually painted red, which represented the earth. Within this band were unpainted discs symbolizing fallen stars. An area at the top was painted black to represent the night sky and inside this area were unpainted discs indicating the constellations of the Great Bear and the Pleiades. In the back at the top a Maltese cross, believed to bring powerful dreams to the tipi owner, was depicted.

The collection contains a single *model tipi cover* of cotton drilling. Most of this cover is a single piece, but the ears are separate pieces and there are separate pieces along the bottom. At one time it was accompanied by poles, pegs, and pins but these are now missing. The geometric designs on this model cover conform closely to those described by Ewers.

All the decoration around the base is painted red with a row of unpainted discs. The area at the top is painted black with unpainted discs, six of them arranged in a circle on one ear and five in a curved row on the other, and there is an unpainted Maltese cross in the center at the back. Extending from this cross is a tassel of human hair, the upper part of which is wrapped with a strip of red wool stroud. Similar but smaller tassels are attached to the end of each ear. Below the black area is a pair of parallel, curved red bands. Above the door along the upper edge of the cover on both sides of the ears is a painted depiction of what appears to be half of an animal's (buffalo's?) head. When the cover was in place, the two halves of this portrayal would be joined (fig. 2).

Blackfoot tipis were provided with a pair of back walls made of buffalo hide or cowhide. These are large, rectangular pieces that served as a screen on the inside of the tipi cover to keep out the wind and any water that might drip down the poles. In winter, dried grass was stuffed between the screen and the tipi cover (Wissler, 1910, p. 106, figs. 65–66).

The collection contains a single *back wall* approximately 3 m 34 cm wide and 2 m high, about the same size as the back walls illustrated by Wissler (1910, figs. 65–66). It consists of two rectangular pieces of hide approximately the same size sewn together with sinew and joined at the bottom by a pair of gussets. There are rows of suspension holes along the bottom and along both sides. The top edge is notched and there is a row of cut skin ties along its entire length for attachment to the tipi poles. The ornamentation consists of eight vertical elements approximately 35 cm apart surrounded by a border on three sides. The edges of the borders and vertical elements, as well as the cross-hatched areas of the borders, were created by scraping rather than painting. The interlocking wave motifs on the borders and vertical elements are painted alternately blue and red. Down the center of each vertical element are hourglass motifs painted alternately yellow and blue (fig. 3).

Subsistence

The collection contains a single self *bow* of the double curve type. It is 101 cm long and approximately 2 cm thick at the grip. The front of the stave is convex and the back flat. The grip is somewhat thinner than the limbs, which taper toward the horns. The grip and the horns are encased in membrane, probably intestine, for a distance of 11 cm. There is a single U-shaped notch at the end of each horn for attachment of the bow string, which consists of two strands of twisted sinew. The front of the stave is entirely covered with the skin of a western plains garter snake (*Thamnophis radix*). About midway along each limb are fastened strips of ermine (*Mustela* sp.) skin attached with strands of sinew wrapped with purple- and yellow-dyed porcupine quills (fig. 4a).

Ewers (1958, pp. 122–123) noted that chokeberry wood was the preferred wood for bow making and a rattlesnake skin was sometimes glued over the sinew of a sinew-backed bow. Wissler (1910, p. 157) believed that ash was the favorite wood for bows. According to Ewers (1958, p. 123), the bow was held in a slanting rather than a vertical position. If the weapon was stiff and hard to pull, the secondary release was used, and, if limber, the primary release was preferred.

Ewers (1958, p. 77) stated that Blackfoot hunters continued to use the bow and arrow for hunting buffalo (*Bison bison*) after the introduction of firearms because of the difficulty in reloading a muzzle-loading trade gun while riding a horse. Also, it was much easier for the individual hunter to claim the animals he killed by identifying his arrows. Nevertheless, by the time of Wissler's field-

work during the first decade of the 20th century, bows had been out of use for so long that information concerning them was difficult to obtain (Wissler, 1910, p. 155). Short bows, like the one in the Field Museum's collection, were used by mounted hunters. Wissler (1910, pp. 155–156, fig. 101) described such a bow collected in 1870. It is double-curved, 107 cm long, and sinew-backed. Pope (1923, p. 342, pl. 48, fig. 18) described a single-curve hunting bow in a private collection that is approximately 100 cm long and sinew-backed and made of hickory wood. When drawn 20 inches, it pulled 40 pounds and shot 153 yards. Catlin (1848, vol. 1, pp. 32–33, pl. 18a) described the Blackfoot hunter's bow as being 2.5–3 feet (76–91.5 cm) long and the weapon he illustrated is double-curved.

A combined *quiver and bow case* is made of otter (*Lutra canadensis*) skin (quiver) and buckskin (bow case). The bow case is made of three irregularly shaped pieces of skin sewn together with twine, while the shorter quiver, not stiffened with a stick, is a single piece with the seam along the upper edge. Both have fringes at the distal end. That of the quiver consists of strips of deerskin, and that of the bow case lengths of rawhide. The quiver and bow case are joined together at intervals with strands of rawhide. The carrying strap is a narrow strip of commercial leather backed with a strip of canvas to which is stitched a length of red wool stroud. Both quiver and bow case are ornamented with strips of red wool stroud at each end and in the center. Spot-stitched to these strips are three parallel rows of white, yellow, and blue beads (fig. 5b).

The quiver is accompanied by 12 *arrows* with wood shafts, all approximately 60 cm in length and circular in cross section. The notches are V-shaped and the nocks bulbous. All these arrows are fletched with trimmed crow or hawk feathers between 19 and 23 cm in length. The barb has been removed from each end of the vane exposing about 3 cm of the shaft or spine at the distal end and 1 cm at the proximal end. Each arrow shaft is feathered with three vanes placed approximately 5 mm from the proximal end. Each vane is parallel to the long axis of the shaft and is not spiraled. The spines at the ends of the exposed vanes are lashed to the shaft with narrow bands of membrane. All these arrows have triangular metal blades with slightly convex bases that are sharpened along the edges. They are inserted into the split distal ends of the shafts parallel to the plane of the notch and lashed with membrane. The shaft of each arrow in this set is ornamented in the fletched area with a broad band of brown and a narrow band of blue pigment. Small brown- and green-dyed feathers and feather down have been inserted into the lashing that holds the fletching to the shaft (fig. 4b).

In addition to the set of arrows just described, the collection contains three additional sets for a total of 34 arrows. All are constructed in a manner similar to those just described, although on a few the blades are hafted at right angles to the notch. All are decorated at the proximal end of the shaft with a broad and narrow band of pigment, usually yellow and blue. On a few arrows the lashing holding the feathers to the shaft is painted with red pigment (fig. 4c–e).

According to Wissler (1910, p. 157), arrows were usually made of serviceberry wood and sometimes willow. Although his informants recalled the use of stone arrowheads, points of bone or antler were more frequently used before the introduction of metal. Grinnell (1904, p. 200) noted that metal arrowheads were barbed when used in war and barbless for hunting, a dichotomy that agrees with the sketches made by Catlin (1848, vol. 1, pl. 18d). Wissler (1910, p. 161) doubted that painted bands on arrows were ownership marks. He believed that individual craftsmen could recognize their own work regardless of specific marks.

A rectangular sandstone *arrow shaft straightener* has deep grooves on two sides. Presumably the shaft to be smoothed was pulled back and forth in the grooves until the desired smoothness was achieved (fig. 7a).

The Blackfoot obtained breech-loading, repeating firearms in 1870 (Ewers, 1955, p. 199) and the collection contains two *gun cases,* presumably for this type of weapon. The first, made of several irregularly shaped pieces of tanned buckskin, widens at the proximal end. Red wool stroud is sewn into seams in places and around the opening. Just below the opening are six parallel, spot-stitched bands of light blue, dark blue, and green beads. There are 10 parallel rows of beadwork in the same colors at the distal end. Extending from the distal end is a separate fringe of tanned buckskin and one long strip notched at the end (fig. 5a).

The second gun case is constructed from four rectangular pieces of tanned buckskin with strips of red wool stroud sewn into the seams. At the proximal end where the case widens is a panel of spot-stitched, light blue, dark blue, red, yellow, and pink beads. A narrow, rectangular panel of similarly colored beads occurs at the distal end of

the case. There are long fringes of two-strand, twisted buckskin around the opening and also at the distal end where one fringe element, much longer than the others, has a rectangular piece of hide fastened at the end (fig. 6).

A "*signal glass,*" so identified in the catalog, consists of a small rectangular mirror set in a wood frame. The mirror and frame are contained in a rectangular fringed pouch of cowhide, to the front of which is attached a spot-stitched beaded panel with geometric designs in pink, light blue, dark blue, and white beads. A strip of cowhide with the hair on forms a carrying strap (fig. 7d). It seems likely that mirrors like this one were used by hunters to signal to one another their location and/or the location of game animals.

Hunters and warriors carried sharp, heavy bladed knives in rawhide sheaths that were worn at the belt (Ewers, 1958, p. 130). The collection contains five *knife sheaths,* all of which are made of single pieces of heavy rawhide, folded and sewn with strips of hide or sinew. Each sheath is decorated with a broad, spot-stitched beaded band across the top and down the curved side. The decorative designs are geometric and the colors are white, pink, dark blue, light blue, red, and yellow (figs. 7b–c, e–f, 8e). One sheath has a row of brass tacks running along the inside of the vertical beaded band (fig. 7f). All the sheaths have triangular eyes for the belt, an indication that they were used by men (Wissler, 1910, p. 76). Accompanying one sheath and fastened to it at the top is a paint bag of tanned buckskin (fig. 7e), which will be described with other paint bags in the collection. At the time of Wissler's fieldwork, beaded knife sheaths were rare among the Blackfoot (Wissler, 1910, p. 76).

Tools

Trade in buffalo robes was an important activity for the Blackfoot during the historic period, and the women who prepared the skins played a more important role in this trade than did the men who killed the buffalo. According to Ewers (1958, p. 108), a woman could prepare 25–30 robes during a winter and a good buffalo hunter could provide several wives with enough hides to keep them busy during that period.

The first step in dressing a buffalo hide was to remove the fragments of tissues and fat that adhered to its inner surface. This was accomplished by a process known as fleshing. The hide was stretched out on the ground with the hair side down and fastened around the edges with lodge pegs. The worker then knelt over the hide and hacked away the adhering materials with a flesher held in the right hand (Ewers, 1945, p. 10, 1958, pp. 109–110).

The collection contains two *fleshers.* The first is made from the metatarsal of a buffalo or steer and has a serrated metal blade lashed to the distal end with rawhide. The upper two-thirds of the implement is wrapped with hide to which a rawhide loop has been lashed (fig. 8f). When in use, such a tool was grasped near the middle and the loop passed under the wrist as a brace (Wissler, 1910, p. 66). The second flesher is made from the shaft of a buffalo or steer tibia with part of the astragalus attached. At the distal end, a rectangular, serrated metal blade has been lashed with rawhide (fig. 8g). Ewers (1958, p. 110) noted that a strong woman worked several hours fleshing a large buffalo hide.

After the hide was cured and bleached in the sun for a few days, the inner surface was scraped to an even thinness with an adze-like scraper. Then the hide was turned over and the hair removed with the same tool (Ewers, 1945, p. 10, 1958, p. 110). There are five such *scrapers* in the collection. All are of the elk (*Cervus canadensis*) antler elbow type and the distal ends are flattened on the inner surface to receive a metal blade. The blade, missing on two scrapers, is wrapped to the haft with a broad band of tanned buckskin and lashed with rawhide thongs. On two scrapers, a length of thong is wrapped around the handle and anchored at the proximal end through a hole in the handle or to a nail (fig. 8a). On the third, this thong is attached to a broad hide ferrule that fits over the proximal end to provide the user with a firmer grip (fig. 8b).

If a hide was to be made into rawhide objects, these procedures completed the preparation. If it was to be soft-tanned, an oily mixture of animal brains and fat was rubbed into the hide by hand. Then the hide was worked over with a smooth stone, which helped to distribute the oil through the hide, placed in the sun to dry, and then soaked with warm water and rolled into a bundle. The final step involved further softening of the hide by rubbing with a rough stone and moving it back and forth through a loop of twisted rawhide tied to the underside of a lodge pole (Ewers, 1945, pp. 11–12, 1958, pp. 110–111).

According to Wissler (1910, pp. 21–22, fig. 1), berries were crushed with stone hammers. The collection contains one such *hammer.* The head is of stone, wider and longer at the distal end, with

a transverse groove around the middle. The handle is wood, doubled, which passes around the head in the groove. The top of the head has a firm covering of rawhide and loops of the same material are wrapped around part of the handle (fig. 8c). The collection also contains two stone *hammerheads,* both with transverse grooves around the middle. One is egg-shaped (fig. 9d) and the other has one flat surface (fig. 9c).

The collection contains two rectangular pieces of petrified wood, which are described in the catalog as having been used as *knife sharpeners* (fig. 8d).

Awls for puncturing holes in skins were kept in beaded cases. The collection contains two *awl cases,* the first of which, presented to Dorsey by Robert N. Wilson, consists of a narrow tube of rawhide sewn up one side with sinew and tapering to a point at the distal end. There is a rawhide cap that fits over the opening. The whole is wrapped with light blue beads strung on thread. There are geometric designs in dark blue and pink beads. Extending from the distal end are two rectangular strips of skin that terminate in several short strips of ermine skin. Attached to the case just below the cap is a knotted strand of rawhide ornamented with six large, brass beads. Extending from the top of the cap is a loop of tanned deerskin with several brass ornaments (fig. 9b).

The second awl case is similar in shape but it has no cap. It is wrapped with light blue beads with geometric designs in dark blue and yellow beads. Extending from the distal end are two rectangular strips of skin edged with light blue and dark red beads. This awl case is attached to a "spy glass" in a circular pouch of rawhide wrapped in tanned buckskin with a drawstring at the top and fringes of tanned deerskin at both the top and bottom. The pouch is ornamented on one side with parallel rows of light and dark blue beads. There is a carrying strap of commercial leather ornamented with rows of light and dark blue beads. The awl case is attached to this strap with a strand of rawhide ornamented with six large, red beads (fig. 9a). According to Wissler (1910, p. 74), Blackfoot women fastened the awl case to their dresses, usually higher up on the breast or over the left shoulder so that it could be reached easily with the hand.

Transportation

The collection contains four *quirts,* each of which is distinctive and will be described separately. The first, and simplest, has a long handle of plaited commercial leather. The lash attached at the distal end consists of a pair of rectangular leather strips and there is a wrist strap of the same material (fig. 15c).

Two quirts have wooden handles. The first of these has a knob at the proximal end and a recessed grip. The upper two-thirds of the handle is wrapped with copper or brass wire and studded with brass tacks. The lash consists of plaited rawhide attached to the handle by inserting a folded strip through an opening in the distal end and looping it around a wooden plug driven into a hole drilled vertically through the handle (Ewers, 1955, p. 98, fig. 17a). The wrist guard consists of a folded strip of wolverine (*Gulo gulo*) fur to which strips of red wool stroud have been sewn with string. It is attached to the handle with rawhide through a hole just above the knob at the proximal end (fig. 10a). The other wooden-handled quirt is elaborately carved with curvilinear designs. The plaited rawhide lash is attached through a hole at the distal end of the handle and is ornamented at the upper end with strips of red wool stroud wrapped with a length of rawhide. The wrist guard, attached through a hole in the proximal end of the handle, is a broad strip of black wool stroud edged with the same material in red. The outer surface is ornamented with a pair of long-tailed weasel (*Mustela frenata*) skins (fig. 10b).

The most elaborate, and traditional, quirt has a handle of elk horn and the plaited rawhide lash has the same plug attachment as that of a previously described quirt with a wooden handle except that the plug appears to be a pair of large brass tacks. The upper end of the lash is wrapped with red yarn. The elaborately decorated wrist guard, attached with rawhide through a hole in the proximal end of the handle, consists of a rectangular strip of patterned cotton cloth cut to a V shape at each end, backed with rawhide, and covered on the front with red wool stroud. The front is ornamented with beaded floral designs in a variety of colors (fig. 10c).

According to Ewers (1955, p. 70) and Wissler (1910, p. 96), quirts were carried by Blackfoot riders of both sexes. A woman riding a travois would strike one of the shafts with the quirt handle as she commanded her horse to start. Quirts could also serve as weapons during hand-to-hand combat.

Also associated with transportation are a pair of rawhide *parfleches,* described in the catalog as "clothes carriers." These folded envelopes of tough,

waterproof hide were used primarily for holding pemmican and were commonly transported in matched pairs, one on each side of the saddle. The two examples in the museum's collection have angling flaps, three pairs of lace holes, and side loops for attachment to the saddle.

According to Wissler (1910, pp. 79–81) and Ewers (1958, pp. 112–113), Blackfoot women began the process of making a parfleche by pegging a buffalo or cowhide on the ground with the hair side down. After fleshing, the outlines of one or more parfleches were marked using peeled willow sticks; the painting was done at this time. The hide was then turned over, the hair scraped off, and the parfleches cut to their desired shapes with a sharp knife. To fill the parfleche, it was opened out and the contents arranged in the middle. The large side flaps were then folded over and tied, after which the end flaps were laced (Wissler, 1910, p. 80, fig. 46; Ewers, 1955, p. 113, fig. 20). Parfleches were painted primarily on the end flaps, secondarily on the longer, narrower side flaps, and the decoration was identical on matched pairs like these, which are ornamented with triangles, circles, and straight lines in blue, red, and yellow pigments (fig. 11).

The collection also contains a pair of *saddle bags* made from a single piece of rawhide folded at the bottom and laced together along the sides. There is a skin tie that passes through holes in the front of the bag and the flap. The fronts of these bags are painted with geometric designs in red, yellow, and blue pigments. Strips of red wool stroud are woven into the lacing and long fringes of cut skin hang from the side seams. These bags were hung over a saddle horn by a skin strap passed through a pair of holes in the back (fig. 12). Similar saddle bags are described and illustrated by Wissler (1910, pp. 76–78, figs. 41–42) and Ewers (1955, p. 119, fig. 23b).

Household Equipment

Among the Blackfoot the triangular backrest, a form widely distributed throughout the Plains, was used at the heads of couches in the tipi. To make a backrest, three sinew cords of the proper length were stretched tightly on stakes driven in the ground. Willow sticks were then laid in a parallel row across these cords starting at the base and secured with lengths of sinew drawn around the stretched cords and each stick. By this means the sticks were fastened together along each edge and in the center (Wissler, 1910, pp. 54–55, 105, figs. 12–13).

The single *backrest* in the collection is edged with black wool stroud, which covers the sinew lashing. Just inside this edging, on both sides of the upper half, a narrow strip of red wool stroud is woven over and under every four sticks as decoration. At the top is a loop of tanned skin for attachment to the tripod supporting the rest. Also at the top is a decorative flap of red wool stroud. It has a fringe of tanned hide at each end and is edged and divided into three sections with black wool stroud, along the inner side of which is a row of clear beads. On the horizontal black strips is a series of double crosses in blue and yellow beads (fig. 13).

Backrests were suspended by the loop from a four- or *three-pole backrest stand.* The collection contains one example of the latter consisting of three willow poles 155 cm long and 2.5 cm in diameter, pointed at one end and flat across the top at the other. These poles are joined by a deerskin thong that extends through holes 5 cm from the top. The poles have been decorated by removing most of the bark but leaving some to create a series of narrow bands and connected diamond-shaped designs (fig. 14).

According to Wissler (1910, p. 28), wooden bowls were formerly used for serving and eating but he did not see any at the time of his fieldwork. Large burls from any tree except the cottonwood were used and trimmed in the general shape of a bowl. The cavity was made using a hatchet or chisel, and then hot stones were dropped in and rolled around to smooth the inner surface. The outside was shaped by scraping and, finally, the completed bowl was coated with grease and polished by rubbing.

The collection contains six *bowls,* one of which has straight sides and a flat bottom (fig. 16c). Three have flaring sides and rounded bottoms (figs. 15a–b, 16b). A crack in one has been repaired with lead, strands of wire, and brass tacks (fig. 15b). Two bowls have flaring sides and flat bottoms (fig. 16a,d); one of these has a carrying strap of braided string (fig. 16a). Wissler (1910, pp. 28, 30) noted that bowls were usually carried in buffalo skin bags with the hair on. Bowls used in ceremonies were purchased from traders.

Eight objects in the collection, identified as spoons in the catalog, have deep, wide bowls and were probably used as *ladles or dippers.* According to Wissler (1910, p. 29), these implements were made of mountain sheep horn and all but one in the collection are made of this material; the ex-

ception is made of wood. All these ladles or dippers have deep, ovoid bowls. The largest horn specimen has a stubby, curved handle and a rawhide carrying strap (fig. 17a); four others have larger upturned handles (fig. 17c,f). Two are shallower and lack handles (fig. 17d–e); one of these has a suspension hole at the proximal end (fig. 17d). The single wood ladle or dipper is shaped very much like the horn specimens with a deep, ovoid bowl and a short, broad, upturned handle that is an extension of the bowl (fig. 17b).

According to Wissler (1910, pp. 29–30), in making a horn spoon or ladle, the horn was first scorched in a fire that caused the "gluey matter to fry out." Then the horn was trimmed to the desired shape with a knife, softened by boiling in hot water, and placed in a hole in the ground for support. A stone of suitable size was forced into the softened horn to form the bowl. The handle was then bent to the desired shape and held in place with stones, which were removed when the horn was dried and the spoon or ladle ready for use. Spoons and ladles were made by both men and women. Wissler (1910, p. 29) noted that few were in use at the time of his fieldwork except in "the ceremonies connected with the medicine women at the sun dance."

Like other Plains tribes, the Blackfoot stored berries in the whole skins of small animals, usually the skin of an unborn buffalo calf. The collection contains three such bags, two of which are probably buffalo fetuses. The apertures are sewn with sinew and the skins are cut off at the neck. Both bags are undecorated and show considerable signs of use. The third bag, somewhat smaller and lighter, may be the skin of an unborn domestic calf. The anus is covered with a piece of cloth and the feet are sewn with braided hide covered with a strip of red wool stroud. Each strand of the ties is wrapped with red-dyed porcupine quills (fig. 18d).

The collection contains five *pouches* that presumably were used for a variety of household and related purposes. The first of these is made from strips of untanned hide from the legs of deer or antelope (*Antilocapra americana*) and sewn together with sinew with the dewclaws attached. There is a narrow strip of tanned hide around the opening and a tie of the same material (fig. 18a). A similar Blackfoot pouch is described by Wissler (1910, p. 74). A second pouch is made from the entire foot of a swan (fig. 18b).

Two pouches are in very poor condition and their original shapes are not entirely clear. The first is made from a section of intestine and contains a large number of porcupine (*Erethicon dorsatum*) quills, some of which have been dyed red. The second is rectangular with an oval piece of tanned skin at the bottom. It is built up entirely of horizontal bands of yellow, red, and pink beads sewn with sinew. A strip of ermine skin was originally sewn to this pouch but its exact position cannot now be determined.

The only rawhide pouch in the collection is made from a single triangular piece folded and laced up the sides with tanned hide. There is a flap at the top and a hide tie has been inserted through a pair of holes in the front just below the opening; there is a similar pair of holes in the flap. This pouch is ornamented on the front with painted geometric designs in red, yellow, and blue pigments surrounded by a blue border outlined in brown. A yellow border outlined in brown extends around the outer edges of the pouch on both the front and back. Also on the back is a blue border outlined in brown similar to that on the front but without the interior painted designs (fig. 18c). According to the catalog, this pouch contained "sweet scented herbs" and was owned by "Mrs. Red Crow," youngest wife of Chief Red Crow, head chief of the Blood who signed Treaty No. 7 with the Canadian government in 1877 and died in 1900 (Ewers, 1958, pp. 264–265; Dempsey, 1980, p. 214).

Clothing

Dresses and Shirts—Although it is possible that the older form of a Blackfoot woman's garment was a slip dress fastened over the shoulders and with detached sleeves (Grinnell, 1904, p. 196; Tyrrell, 1916, pp. 349–350) like that of the Plains Cree (Mandelbaum, 1979, p. 83; VanStone, 1991, p. 11, fig. 31a–c), by the 1830s Maximilian (1843, p. 249) described a long dress reaching almost to the ankles. These dresses, made of antelope or elk (*Cervus canadensis*) skin, consisted of three basic pieces. One skin formed the front of the garment and another the back. Both were sewn together up the sides and to a yoke that covered the shoulders and upper arms. Sometimes it was necessary to fill out one or more of these pieces to obtain the required shape (Wissler, 1910, pp. 125–127; Conn, 1961, pp. 114–119).

The collection contains four *women's dresses,* all of which are constructed much as just described. Each one, however, differs in some details of construction and ornamentation, so they will be described separately.

The first dress has a yoke, the long edges of which are sewn to the body pieces with an overhand stitch; the seam is turned inside. At the outer edges, additional small pieces have been added to fill out the area that covers the upper arms. The excess flaps at the upper end of the body pieces are folded over and tacked down with laced skin thongs. The animal's tail, sometimes the actual tail but in this case an imitation that is sewn on, falls in the middle of the wearer's chest and back. The side edges are sewn so as to leave a 5- or 10-cm extension on one side that is cut into a fringe. Separate pieces have been added along the bottom edge to fill out the trifurcate shape derived from the neck flap and forelegs of the skin (fig. 19).

The decoration on most Blackfoot dresses, which is identical on both sides, falls into four separate units. There are beaded strips across the shoulders and around the neck opening, a wide curved breast band, a triangular ornament in the center of the skirt, and decoration along the bottom edge.

On this dress the beaded strip across the shoulders consists of a single band made up of vertical rows of brown and white beads. Around the neck opening are two parallel rows, the upper of which is sewn on a strip of red wool stroud. The broad breast band, curved around the deer's tail, consists of three beaded rows, sewn in vertical series. The one in the center is blue and the other two are white. Below the breast band is a fringe of long buckskin thongs pulled through two small holes to make double hanging thongs at close intervals. In the center of the front and back, just above the level of the wearer's knees, there is a triangular ornament of red and black wool stroud. A skin thong is appliqued over the cloth and the ornament is edged with alternating bands of black and white beads. According to Conn (1961, p. 118), this cloth patch has been variously identified as a buffalo head or a uterine symbol. The bottom of the skirt is decorated at the sides with pairs of black and red wool stroud patches and a curving row of black and white beads that follows the seams of the insets in the back and front skins. Above this beaded band is a row of double thongs with small patches of red wool stroud caught into them where they attach to the dress. Fringes of skin are sewn into the seams above and below the patches and all along the lower edge of the beaded band. The bottom edge of the garment has been cut to a fringe. The sewing throughout this dress is with sinew except for the cloth patches, which are thread-sewn (fig. 20).

The second dress is constructed in much the same manner as the first except that there are no excess flaps at the upper ends of the two body pieces. Also, there are no separate pieces added at the bottom to fill out the natural trifurcate shape. On this dress there is no beaded strip across the shoulders, only a double row of light and dark blue beads, vertically sewn, around the neck opening. The broad curved breast band consists of four vertically sewn bands of black and white beads with an imitation deer's tail sewn in the curve on the front only. Below this band are the usual double thongs with more at the level of the triangular ornament of red and black wool stroud, which has an elaborate border of yellow, blue, and white beads. There are the usual pairs of black and red wool stroud patches at the bottom on either side with a row of vertically sewn blue and green beads around the patches and the lower edge. Above this band is a row of double thongs with red wool stroud patches where they are attached to the garment (fig. 21).

Like the first dress, the body pieces of the third garment, with imitation deer tails attached, are folded over at the top. Instead of being laced, however, they are tacked down with sinew stitches. The yoke is very narrow. At the lower edge there are rectangular fringed flaps attached at either side below the red and black side patches. Extra pieces have been attached at the front and back in the center of the lower edge to create the trifurcate appearance characteristic of whole skins. There is a band of blue and pink beads around the neck opening and the curved breast band consists of three vertically sewn rows, two of white and one of black beads. The usual row of double thongs extends below the breast band and the triangular patch of red and black wool stroud is edged with green and white beads. The row of double thongs at the level of the triangular patch have red wool stroud patches where they are attached to the garment. Above each double strand is a green and white beaded square. Just above the bottom fringe is a row of double strands with red patches (fig. 22).

The fourth dress differs from the others in having a broad band of beadwork that covers the entire yoke, extending across the shoulders and up to the neck opening, which is edged with red wool stroud. This band, vertically sewn, consists primarily of white beads with borders of green, pink, and blue beads. Four vertical bands of blue beads ending in triangles of dark red beads extend into the white beaded area below the neck opening. There are the usual double thongs below the breast

band and another row farther down the garment, but there is no triangular ornament nor are there cloth patches on either side of the bottom edge. The lower edge of the garment is filled out with the addition of two separate pieces similar to those used for the same purpose on the first dress. There is a band of pink and black beads, vertically sewn, along the bottom edge above which is a row of double thongs with red wool stroud patches where they are attached to the garment (fig. 23).

In addition to these dresses, the collection contains a *woman's robe* made from a whole steer skin with the hair on. According to Wissler (1910, p. 123), at the time of his fieldwork robes were seldom worn but were used as bed covers or for decorative purposes. This robe was presumably intended to be worn. The tanned surface has been lightly covered with brown pigment and there is a pattern of geometric designs using black and brown pigments in the center. A pattern combining straight lines, spurred lines, and triangles in black pigment follows the outer contour of the hide. On the upper part of the robe are two beaded rosettes, worked on separate pieces of hide, with light blue, dark blue, yellow, and red beads. These rosettes are fastened to the hide with a knotted thong that runs from a round brass bead in the center. A strip of rawhide extends from each rosette. The edges of the hide are notched and in the center, above the painted pattern, the hide has been scraped to form initial-like markings that may be ownership marks (fig. 24). Women usually belted their robes about the waist. The upper part was allowed to fall free when both hands were needed for work (Ewers, 1958, p. 117).

The collection contains three men's shirts that are identified in the catalog as "*war shirts.*" The body of the first is made of two deer or antelope hides joined by a seam at the top. The fringed skins from the hind legs form side trailers, and the animal's tail, with a tuft of hair, forms a center border ornament. The sides are open except for two ties, one under the arm and another at the waist. All the open edges of the body are cut into short, broad fringes and the trailers into longer fringes. The sleeves are closed, each being made of two basic pieces with smaller pieces added to form the cuffs (fig. 25). This is the typical form of a Blackfoot man's shirt, as described and illustrated by Wissler (1910, pp. 120–121, fig. 71).

This shirt is decorated with flaps of red wool stroud around the neck opening and broad bands of white beads, worked on separate pieces of hide, with design elements in black and yellow beads laid over the shoulders and down the sleeves. There are four design elements on each shoulder band, and the three elements on each sleeve are more elaborate. Long fringes at the shoulders and along the beaded bands on the back of the sleeves are wrapped near the upper ends with white- and orange-dyed porcupine quills. Just below this quill-wrapped area a strand of sinew strung with small blue beads connects each of the fringe elements. Sewing throughout is with sinew and the body and sleeve skins are uniformly covered with brown pigment (fig. 26).

Construction of the second "war shirt" is virtually identical to that of the first except that each sleeve is a single piece with separate cuff, and the sewing throughout is with thread. The fringes at the tips of the trailers are twisted and the hair has not been removed. This shirt also has flaps of red wool stroud around the neck opening and there are broad bands of light blue beads across the shoulders and down the sleeves with design elements in dark blue and yellow beads. There is a large beaded disc in the same colors on the breast. Between the beaded shoulder bands on the front and back are broad parallel lines of black pigment. The areas between these lines are filled in with yellow pigment. There are similar parallel black bands and yellow pigment the length of each sleeve. At intervals across the front just below the neck opening are long strips of ermine skin wrapped around strips of cloth knotted at the proximal end and inserted through holes in the garment. The upper ends of these strips are wrapped with pieces of red wool stroud from which extend small red-dyed feathers; red-dyed feathers are also attached at the distal ends of the ermine strips. There are similar ermine strips, similarly attached, along the beaded bands on the sleeves hanging in the back (fig. 27).

The third "war shirt" is the largest and most elaborate. Construction is similar to the other two: a pair of body pieces and two sleeve pieces. Sewing is a combination of thread and sinew. The broad bands over the shoulders and along the sleeves are of white beads with design elements in black, pink, and yellow beads. The decorative elements, four on the shoulder bands and three on the sleeve bands, are identical on both. There is a large yellow, red, and blue beaded disc on the breast and flaps of red wool stroud around the neck opening. The upper half of the shirt and the sleeves are ornamented with rows of black circles. Long strips of ermine fur, attached on strips of cloth or hide, extend from the neck opening and the sleeves at

the back. The upper ends of these ermine strips are wrapped with red wool stroud and further decorated with large light blue beads, brass beads, and red-dyed feathers (fig. 28).

The collection contains a *child's coat* of red wool stroud. The front and back is a single piece, as is each sleeve. There is a separate collar. The coat is fastened in front with three skin ties. There are broad bands of white beads, sewn on separate pieces of hide, across the shoulders and down each sleeve. Identical design elements, in purple and pink beads, are four in number across the shoulders and three on each sleeve (fig. 29).

LEGGINGS—The collection contains nine pairs of leggings, four for women, four for men, and a single child's pair. At the time of Wissler's fieldwork, women's leggings were usually made of cloth and reached the knees. There was a beaded panel at the bottom and a single seam on the side worn on the outside of the leg (Wissler, 1910, p. 127, fig. 77).

There are two examples of this style of *women's leggings* in the collection. On the first, identified in the catalog as having been worn by a girl, the upper section is made of black wool stroud edged with cotton drilling. A beaded panel of tanned skin at the bottom is edged with red wool stroud and the overlapping edges are closed with four two-strand laces to draw the legging snug around the ankle. The beaded panel is done in overlay with the rows of beads running horizontally. The background color is white and the design elements are in blue, red, and yellow beads (fig. 30a). On the second pair the uppers are made of red wool stroud. The background color of the beaded panel is white with design elements in light blue, dark blue, yellow, and dark red beads (fig. 30b).

Two pairs of women's leggings are quite different and obviously much older. They are not true leggings but leg ornaments of printed cotton cloth with skin ties at the four corners for attachment to the leg. Across the surface of the panels narrow rectangular strips of hide wrapped with dyed porcupine quills are fastened.

On the first pair the background is light blue and the design elements are in red-, white-, purple-, orange-, and yellow-dyed quills. The hide strips are attached to the panel at each end with sinew. Along one side is a row of metal cones from which extend orange-dyed horsehair (fig. 30c).

On the second pair the background is green and the design elements are in white-, purple-, and yellow-dyed quills. The hide strips, cut from a single piece, are backed with printed cotton cloth. Along one side is a row of metal cones from which extend yellow-dyed horsehair. A folded strip of red wool stroud is sewn along the opposite side of one legging (fig. 30d). In the catalog, this pair of leggings is identified as "Assiniboine," but they were obtained from the Blackfoot.

According to Wissler (1910, p. 122, fig. 73), men wore long leggings that reached to the hip and were attached to a belt. Three pairs of *men's leggings* in the collection conform to this style. The first is made of a single piece of tanned deer or antelope hide, fringed along both edges, which are fastened together at intervals with single-strand hide ties. At the bottom is a rectangular panel of white beads worked directly onto the skin. The design elements are in pink and dark blue beads. The bottom is edged with blue wool stroud and the skin has been painted with brown pigment (fig. 31b).

The second pair is also made essentially of a single piece of tanned deer or antelope skin cut to a long fringe on one side, the two edges being sewn together with sinew. The bottom, which flares slightly, is made of six small pieces of fringed skin. The top is cut to a short fringe, and there are a pair of skin ties for fastening to the belt. This pair of leggings is ornamented with a rectangular beaded band that extends almost the entire length of the garment on one side. It is worked on a separate piece of skin, and the background color is light blue with design elements in dark blue, yellow, and green beads. The entire surface of the skin is painted with brown pigment, and parallel black bands, only faintly visible, circle the leggings (fig. 32a).

The third pair, said to have been owned by Who Sleeps Above Ground, a brother-in-law of Chief Red Crow (Dempsey, 1980, p. 118), is also made of tanned deer or antelope hide; it is stitched up one side with sinew. The upper portion is cut to form a pair of fringed flaps and then flares in the area of the hips and extends to form strips for attachment to the belt. The leggings are open above the flaps, and the edges, including the support strips, are fringed. At the bottom, four additional pieces of fringed skin have been added to form triangular flaps that would cover the upper portion of the moccasins. The fringes are wrapped with orange- and white-dyed porcupine quills. Below the wrapped areas, small blue beads are strung on a length of sinew that connects the fringe elements. A beaded band, worked on a separate piece of hide, runs along the seam on one side. The background color is white and the design elements are in tan and brown beads. These leggings are painted with

brown pigment, and there are parallel bands of black pigment around the lower half (fig. 32b). Men's leggings with flaps or tabs at the bottom are the oldest style on the Plains but they persisted among the Blackfoot into the early 20th century (Chronister, 1972, pp. 2–3).

A quite different pair of men's leggings are made from blue blanket cloth edged with red wool stroud. The material is folded over at the top and sewn vertically with twine at an angle so as to produce a pair of flaps that extend from the bottom to the folded-over top. There are a pair of cloth ties at the top for attachment to the belt. At the bottom on each side is a panel of red wool stroud edged with cotton drilling and with a border of white, blue, and yellow beads. A portion of the bottom edge is reinforced with hide lacing (fig. 31a).

A pair of red flannel *child's leggings* are made of a single piece cut to a fringe along each edge, folded over at the top, and sewn up the side with black thread. Running vertically along the fringed side is a rectangular beaded panel worked on a piece of hide. The background color is white and the design elements are in yellow and dark blue beads (fig. 34a).

BELTS AND ARMBANDS—Wissler (1910, pp. 127–128) noted that belts were worn by both men and women, but especially by women. His informants told him that men's belts were very narrow, but otherwise similar to those worn by women. At the time of his fieldwork, women's belts were made of trade leather, about 10 cm wide, and decorated with beads and brass tacks.

The collection contains three *belts,* two of which are described in the catalog as having been worn by women. The first is made of commercially tanned leather and has a large brass buckle. It is heavily beaded with the beads being spot-stitched directly onto the strap. The background color is light blue with design elements in dark blue, purple, red, yellow, white, and green beads (fig. 33b).

The second belt, also made of commercially tanned leather with a metal buckle, is 4.5 cm wide, suggesting that women's belts need not be as wide as indicated by Wissler. This belt has a long trailer consisting of three separately attached narrow strips of commercially tanned hide. The strap has a border of white beads and the design elements, divided into rectangular panels, are of white, green, dark blue, pink, and red beads. Two unbeaded panels are ornamented with brass tacks, many of which are missing (fig. 33c).

The third belt, unspecified as to its use by a man or a woman, is very much like the first with a commercially tanned leather strap 7.5 cm wide and a metal buckle. A long trailer consisting of four narrow strips of leather is attached to the strap and decorated with brass tacks. Like the first belt, this one is heavily beaded and the beads are spot-stitched directly on the strap. The background color is light blue with the design elements in yellow, dark blue, red, and dark green beads (fig. 33a).

There are two pairs of *armbands* in the collection. The first, in poor condition, is made of rectangular strips of skin from the lower legs of deer with the hair and hoofs intact; the strips are backed with printed cotton cloth, and there is a pair of skin ties. One armband is decorated with three strips of ermine skin and the other with red-dyed, quill-wrapped thongs with metal cones at the distal end. The hoofs have been drilled with small depressions, all of which were once filled with orange pigment (fig. 34b).

The second pair of armbands, identified on a catalog card as "Assiniboine" but obtained from the Blackfoot, is made of rectangular pieces of tanned hide edged with strips of wolverine skin and decorated with plaited red-, green-, orange-, white-, and yellow-dyed porcupine quills. The quills are held in place by spot-stitches around the edges and down the center of the decorated area (Orchard, 1971, p. 32, fig. 17). There is a pair of skin ties for fastening the band around the arm (fig. 34c).

MOCCASINS—Blackfoot moccasins were of two general styles. The earliest are one piece and side-sewn while later moccasins are two piece with hard soles. Both types are described and illustrated by Wissler (1910, pp. 128–130, figs. 78–80). Winter moccasins were made of buffalo hide with the hair inside. At the time of his fieldwork, Wissler observed no difference between men's and women's moccasins.

The collection contains nine pairs of *moccasins.* Two pairs are made from a single piece of soft deerskin or antelope skin with a T-shaped heel seam and a side seam that runs from a point near the middle of the heel seam along the outer side of the foot and around the toe. Both pairs have separate top pieces with wraparound thong ties. This pattern conforms to Hatt's series XII (Hatt, 1916, pp. 179–183).

On the first pair, the separate top pieces are notched around the edges, and there are ankle flaps of red wool stroud edged with black printed cotton cloth. Decoration on the insteps consists of key-hole designs in light blue, dark blue, red, yellow, and purple beads. There are also bands of light

blue beads with design elements in dark blue and red beads around the side seams and short bands in the same colors on either side of the heel seams. The skin has been daubed with brown pigment (fig. 35a).

The second pair of series XII moccasins has ankle flaps of red wool stroud decorated at intervals with vertical strips of blue wool stroud fringed with light blue beads. Instep decoration consists of keyhole designs in light blue, dark blue, and yellow beads. Strips of red wool stroud are sewn in the side seams and there are bands of black and white beads along the seams. There are trailers below the heel seams, the area on either side of the seams being decorated with white, blue, and green beads. Short strips of red wool stroud extend from the trailers. The instep area of one moccasin is covered with red pigment (fig. 35c).

Seven pairs of moccasins have flat soles and upper pieces with vertical heel seams. The openings for the feet are cut as two parallel lines, and on three pairs the tongues are sewn to the front of this opening. This pattern conforms to Hatt's series XV (Hatt, 1916, pp. 187–189). Four pairs have separate wraparound top pieces. Because each pair of moccasins in this series has individual characteristics, they will be described separately.

According to the catalog, the first pair of moccasins in this series is made of buffalo skin. The separate top pieces are notched around the upper edges. There are ankle flaps of dark blue wool stroud edged with pink and yellow beads. Decoration on the insteps consists of keyhole designs in white, red, pink, light blue, dark blue, and yellow beads. Three bands of beads in the same colors circle the moccasins just above the seams that attach the uppers to the soles (fig. 35b).

The second pair is made of soft tanned hide with two-piece wraparound tops. Notched pieces of red wool stroud are sewn into the seams that join the uppers to the top pieces. There are simple T-shaped beaded designs on the insteps in light blue, dark blue, and red beads (fig. 36b).

The third pair of series XV moccasins has top pieces of soft tanned hide and ankle flaps of red wool stroud edged with cotton cloth. Broad beaded designs on the insteps are in pink, brown, dark blue, and green beads (fig. 36a).

The top pieces of the fourth pair are notched around the upper edge, and narrow strips of red wool stroud are sewn between the top pieces and the uppers. Beadwork on this pair of moccasins covers the entire uppers. The basic color is light blue and the design elements are in dark blue, yellow, and red beads. Beaded flaps of light blue, dark blue, pink, green, and yellow beads are sewn into the seams separating tongue and instep (fig. 36c). Although acquired from the Blood Indians, this pair may have originated among the Cheyenne or some other central Plains tribe.

Three pairs of series XV moccasins lack separate top pieces. According to the catalog, the first of these was worn by men. The soles are made from an old parfleche, and ankle flaps of red wool stroud are sewn directly to the uppers. They are edged around the top with cotton cloth and around the lower edge with dark blue wool stroud. The insteps are beaded with pink, yellow, black, and green beads, and there are beaded designs in dark green, light green, yellow, red, light blue, and pink beads around the backs of the uppers and up the heel seams (fig. 37a).

The uppers of the second pair are edged with cotton cloth, and there are separate fringed tongues. The insteps are decorated with three vertical bands of green, black, pink, and yellow beads. A pair of bands in the same colors extend around the moccasins at the level of the seams that join the uppers to the soles. Unbeaded areas of the uppers are splotched in places with blue pigment (fig. 37c).

The uppers of the third pair, possibly obtained from the Assiniboine, are edged with cotton cloth and lined on the inside with the same material. Fringes are sewn into the heel seams. The insteps are decorated with white-, blue-, orange-, and red-dyed porcupine quills. The quills are held in place by two rows of stitches, the sinew being caught into the surface of the hide between each fold of the quills (Orchard, 1971, pp. 19–20). There are also rows of white-dyed quills applied in the same manner around the rear half of the uppers. Beadwork decoration on this pair of moccasins includes a band of blue beads, with design elements in yellow beads, around the openings for the feet, and two bands of light blue, dark blue, and white beads around the moccasins at the level of the seams that join the soles and uppers (fig. 37b).

In addition to the complete moccasins just described, the collection contains two pairs of deer or antelope hide *moccasin uppers* for hard-soled footgear. The beaded instep decoration on one pair is in red, light blue, dark blue, and yellow beads (fig. 34e). On the other pair there are stylized floral designs in pink, black, white, and yellow beads (fig. 34d). On both pairs the beadwork design is complete on only one upper.

Clothing Ornamentation

In addition to the categories of clothing previously discussed, the collection contains several items of clothing ornamentation not associated with specific garments. The most abundant of these are beaded *rosettes* for robes, dresses, or shirts. There are four paired and three single ornaments of this type. On three pairs, the beads, in a variety of colors, are worked in circular rows on pieces of hide with single suspension holes for attachment to the garment. In the center of each rosette is a piece of red wool stroud and, on one rosette, a brass button (fig. 38a–c). On the fourth pair, completely covered with pink, brown, and yellow beads, the hide backing includes a long, narrow unbeaded strip (fig. 38d).

Each of the three single rosettes is distinctive. The first, ornamented with red, white, and blue beads, has a double thong extending from the center wrapped with red-dyed porcupine quills and tipped with metal cones (fig. 38f). The second single rosette, ornamented with white, pink, dark blue, green, and yellow beads, has an attached hide strip (fig. 38g). The most distinctive of the three consists of circular rows of black- and white-dyed quills wrapped around horsehair and sewn to a circular piece of hide. In the center is a piece of red wool stroud. Around the outer edge are two rows of black and white beads, and a double thong, wrapped with white-dyed quills, extends from the center. A pair of deer hooves are attached to this thong (fig. 38e).

In addition to the rosette ornaments, there are two sets of *beaded strips* for shirts or leggings similar to those that appear on the garments previously described. The first set consists of four strips, two long ones probably for a shirt and two for a pair of leggings. The beads are worked on hide, and the background color is yellow with design elements in red, dark blue, and light blue beads (fig. 38i). The second set is a similar pair of strips for either a shirt or leggings. The background color is light blue with design elements in dark blue, pink, red, and yellow beads (fig. 38k).

Also possibly used as ornaments are three Northern Pocket *gopher skins* (*Thomomys talpoides*), which are described in the catalog as to "go with child's outfit." Each has a small loop of blue or white beads attached at the nose (fig. 38j).

Although other items in the collection besides clothing are decorated with glass beads and a few with porcupine quills, it seems worthwhile at this point to provide some information on various aspects of Blackfoot beaded ornamentation. Like other Plains tribes, the traditional artistic achievement of the Blackfoot was realized in part by the use of flattened porcupine quills on all clothing and many other items of material culture. Quillwork was regarded as a sacred craft, and young women were taught the procedures by older women (Ewers, 1945, p. 39; Dempsey, 1963). As early as the 1780s Euroamerican traders were in direct contact with the Blackfoot and offered glass beads in trade. By 1880 most women had abandoned work in quills. Since the 1880s, however, the Blackfoot have received many quill-decorated articles as gifts from the Assiniboine, including at least two items described in this study (figs. 30d, 34c; Ewers, 1945, pp. 29–33).

The earliest beads available to the Blackfoot were large, more than .50 cm in diameter, and were used primarily to make necklaces, bracelets, fringe decorations, and hair ornaments. Embroidery beads, smaller than the necklace beads but larger than seed beads, were introduced in the early 1830s and were commonly applied in narrow bands to various items of clothing. The techniques of quillwork and bead embroidery existed together until the adoption of seed beads by the Blackfoot about 1875. Seed beads, about half the size of those previously used, were available in a much wider range of colors and were responsible for a florescence of Blackfoot beadwork during the last quarter of the 19th century (Ewers, 1945, pp. 32–35, 1958, p. 300).

Although there are widespread features that characterized Plains Indian beadwork, it is possible to distinguish regional substyles. The northern Plains evolved a distinct substyle that Lowie (1954, pp. 140, 143) noted as having been typical of the Blackfoot, Sarsi, Plains Cree, and Flathead. It is characterized by bold geometric designs, the beads being applied in a spot or overlay stitch primarily in straight lines. Common design elements included stepped triangles and squares, diamonds, crosses, and oblique wide bands with stepped sides (Ewers, 1945, pp. 36–38). Usually not more than four or five colors were used (Feder, 1971, p. 66). Backgrounds tended to be fully beaded, often in white or blue. Lowie (1954, pp. 140, 143) believed this style of decoration to be simpler than that of any other Plains substyle and thus more closely related to the designs characteristic of quillwork.

Geometric designs like those just described are

present on virtually all the decorated clothing described in this study. There is, however, a single pair of moccasin uppers ornamented with stylized floral motifs (fig. 34d). The extensive use of floral designs appears to have coincided with the increased use of seed beads in the mid-1870s and were probably originally derived from examples of European embroidery. Floral patterns did not replace the use of geometric designs and in the 1880s one style was about as common as the other (Ewers, 1945, pp. 38–39).

Personal Adornment

Aside from face painting, neither Wissler (1910) nor Ewers (1958) have much to say about personal adornment, and the collection contains few items that can be described under this heading.

A pair of polished stone *earrings* are teardrop-shaped with a suspension hole at the proximal end. A single earring is made from an irregularly shaped fragment of iridescent shell with a wire loop for suspension (fig. 38h).

The collection contains three *necklaces* identified in the catalog as having been worn by men. Two consist of narrow strips of hide to which have been sewn six rows of beads, while the third has seven rows. There is a separately attached thong tie at each end. On the first, the beads are primarily light blue with rectangular designs in yellow bordered with dark blue beads (fig. 39a). The second necklace is similar except that the designs are in green, red, and dark blue beads. Attached to this necklace is a length of soft, rolled skin wrapped with light blue, dark blue, pink, and yellow beads. At the proximal end is a hide fringe and at the distal end a pair of metal tweezers, presumably for removing facial hair (fig. 39b). On the third necklace, the one with seven rows of beads, the colors are primarily blue and green with a rectangular design in red, yellow, white, and dark blue beads (fig. 39c).

A young man's *breast ornament,* so identified in the catalog, consists of 13 parallel beaded strands suspended at either end through paired strips of commercially tanned hide with the larger strands at the bottom. Each strand consists of twisted pieces of cotton cloth wrapped with white beads. Strips of hide are attached to the beaded strands on each end to form fringes. At the top are hide ties for fastening the breast ornament around the neck (fig. 39e).

Thirty narrow brass rings are described in the catalog as *bracelets.* One, made from a longer strip of the material, is bent to form a double strand (fig. 39f).

A *hand mirror with case,* so described in the catalog, consists of a rectangular case of commercially tanned hide that contains the wood backing for a mirror; the glass is missing. At one time the case was ornamented on the back with brass tacks, but they are now missing. The front is covered with parallel rows of light blue beads. The top is edged with pink beads, and there are triangular designs in red beads along the sides. In the center is the head of a steer depicted with black beads. A fringe of hide ornamented with large black beads and brass beads is attached to the bottom. Along each side of the case is a long strip of beaver (*Castor canadensis*) skin joined at the top by a thong neck band. About 14 cm from the top of these side strips, lengths of twine strung with brass beads are attached. At the ends are brass thimbles from which extend lengths of gray yarn (fig. 39d). This mirror and case somewhat resembles the previously described "signal mirror" (fig. 7d) and may have been intended for that purpose rather than for personal use.

Ceremonial Equipment

Pipes and Related Objects—As Ewers (1963, pp. 33–34) noted, the smoking of tobacco played an important role in the religious, political, and social life of the Blackfoot. Pipes were smoked as part of the ritual of opening sacred ceremonial bundles and when making peace with enemies. During the years of the fur trade, Blackfoot chiefs smoked with traders before goods were exchanged. Blackfoot etiquette required the offering of a pipe by the owner of a tipi to a visitor. Both men and older women also smoked for pleasure. According to Wissler (1910, p. 82), pipes used by women were much smaller than those belonging to men.

The earliest Blackfoot pipes were apparently tubular with a straight bowl (Ewers, 1963, p. 35). In historic times, however, the pipes have bowls of the elbow or "Modified Micmac" type that are set at right angles to the stem (Ewers, 1963, p. 41). These bowls were made from a grayish, calcareous shale. With a sharp metal tool, the pipe maker marked the outline of the bowl on a block of stone approximately 8–10 cm square and 3 cm thick. The stem and bowl holes were drilled with a metal tool resembling a screwdriver, and the bowl was reamed with a wider tool. The outside was shaped

with a file, the file marks being removed with a knife, and the surface smoothed with a fragment of sandstone. The result was a bowl shaped like an acorn with a heavy rectangular base. The completed bowl was then blackened by holding it over a fire, greased with animal fat, and polished with a piece of skin or a rag (Ewers, 1958, pp. 120–121, 1963, pp. 46–56).

Pipe stems were either round or flattened, and made of ash wood. The long central hole was burned out with a heated iron rod before the bark was removed and the stem polished. Before the introduction of metal, split pipe stems may have been used (Wissler, 1910, p. 83; Ewers, 1958, p. 121, 1963, pp. 56–57).

The collection contains eight *pipes* ranging in length from 18.5 to 80 cm. The longest and heaviest example, described in the catalog as an "old ceremonial pipe," has an elaborate bowl with a large base ornamented with a row of four drilled holes. The entire surface is decorated with incised circle dots and spurred lines. The stem, approximately 2.5 cm in diameter, is attached to the bowl with an animal glue and a lead plug inserted in a hole drilled through the bowl (fig. 40d). Another long pipe has a large bowl with the lower part of the base recessed. The stem, recessed at either end, is wrapped in four places with copper wire (fig. 40c).

A pipe with an important historical association is described in the catalog as "Chief Red Crow's pipe." The bowl is notched along the bottom of the base and around one side. The stem is wrapped in two places with copper wire held in place with brass tacks. The distal end is recessed and the projection covered with a copper or brass ferrule. The recessed area at the proximal end forms the mouthpiece (fig. 40b).

Three pipes are quite similar, in both size and construction. The bowls have plain, blocklike bases and the undecorated stems are recessed at both ends (fig. 41d–f).

Only one pipe in the collection has a flattened stem, a central and eastern Plains style. The bowl has a brass ring around the opening and is attached to the stem with a lead plug. Slightly more than half the stem is decorated with three parallel rows of brass tacks. The remainder is slightly recessed and wrapped with a long plaited band of red-, white-, blue-, and yellow-dyed porcupine quills (Orchard, 1971, pp. 52–53, fig. 33). The proximal end of the stem is recessed to serve as a mouthpiece (fig. 40a).

A short pipe with a plain bowl resembles in size a woman's pipe illustrated by Wissler (1910, p. 83, fig. 49). The stem is crudely made and lacks a recessed mouthpiece (fig. 41c).

The collection contains two *pipe tampers.* The first is a short stick wrapped with sinew at the blunt distal end. The remainder of the stick is wrapped in blue, pink, and green beads. Two strips of ermine skin are attached at the proximal end (fig. 41a). The second pipe tamper, a gift from Robert N. Wilson, is longer and more elaborately decorated. The tip is sheathed with metal and much of the stick is wrapped with pink, black, blue, and yellow beads. The unwrapped portion is carved and incised. The carved areas are painted with brown pigment and the incisions filled with blue pigment (fig. 41g).

According to Wissler (1910, pp. 82–83), Blackfoot tampers, or "stokers" as he called them, were usually shorter than those of most other Plains tribes. A ball of charcoal was sometimes placed at the bottom of a pipe bowl before filling with tobacco. This prevented the contents of the bowl from working up into the stem.

Wissler (1910, pp. 70–71) described long, slender pipe bags of soft skin in which the smoking outfit was kept. These bags taper slightly toward the top and have a separate fringe at the bottom. The proximal end is usually cut so as to form four earlike flaps, and there is a buckskin thong, attached on one side, to tie the opening of the bag. There are decorative beaded panels at the distal end and rows of beads along the edges of the upper portion and flaps.

Tobacco, a pipe, tampers, and lighting implements were kept in the bag, the pipe stem usually projecting from the proximal end. The thong tie was drawn tightly around the stem to close the bag. Wissler believed that the longest and most highly decorated bags were used by men, while those belonging to women were smaller. At the time of his fieldwork, pipe bags were simple cloth containers.

The collection contains seven *pipe bags,* all of which are approximately the same size. In addition to the separate fringe, these bags are constructed of four separate pieces sewn up the sides: two pieces form the upper portion and two form the beaded panel. Five bags are shaped in the manner described by Wissler.

The first of these bags has a panel of light blue, dark blue, and pink beads. A single row of beads in the same colors extends up one side of the bag around the flaps and around the distal end of the ties. The upper end of each fringe element is

wrapped with white- and orange-dyed porcupine quills (fig. 42a).

The second bag tapers more sharply toward the proximal end and has six rather than four flaps. The wide beaded panel has a background of white beads with design elements in blue, dark blue, and dark red beads. A single row of blue and white beads extends up both sides and around the flaps. The wide lower end of the ties is edged with a row of blue and pink beads (fig. 42b).

On the third bag the panel has a wide border of white and yellow beads, the yellow beads being grouped in rectangular sections bordered with dark blue beads. Inside this border the background is of pink beads and the design elements are in dark blue and yellow beads. A single row of dark blue beads runs up each side of the panel. A notched strip of skin is sewn into the seam on either side of the upper portion and the fringe is unusually long (fig. 43a).

The panel on the fourth bag has a border of green beads. Inside this narrow border the background color is of clear beads and the design elements are in dark blue, light blue, red, and yellow beads. A single row of dark blue beads extends up each side of the panel and a single row of light blue beads extends along both sides of the upper portion and around the flaps (fig. 43c).

The fifth bag, with six flaps rather than four, is the only bag with a beaded panel on both sides. On the side shown in the photograph (fig. 44a) the panel has a border of white, dark blue, and yellow beads, which is actually part of the panel on the opposite side. The background color is light blue and the design elements are in yellow beads edged with short rows of black and dark red beads. On the opposite side the background color is white, and similar triangular design elements are in pink beads edged with short rows of dark blue and yellow beads. A narrow strip of red wool stroud has been sewn into the seams separating the beaded panels from the upper portion of the bag. The seams and flaps on the upper portion are edged with dark blue, light blue, red, and white beads. The upper portion of each fringe element is ornamented with four brass beads, and just below these beads the fringe elements are separated by black beads strung on a length of sinew. A small lead weight is attached at the end of one fringe element and a small brass button fastened to another in the same location.

The sixth bag is constructed much the same as the others except that the single pair of flaps at the top is a separate piece, and in front of these, where the second pair of flaps would normally be located, there is a long triangular flap, heavily beaded and with a fringe at the end. The panel is divided into two sections by a band of dark blue and yellow beads. The background color is light blue and the design elements are in black, yellow, blue, and pink beads. Down each side of the panel, and extending below it as far as the end of the fringe, are lengths of rolled cloth wrapped with blue beads. A single row of translucent green beads extends around the upper portion of the bag and the two flaps. The long triangular flap has a border of pink, black, and blue beads and inside this border the background and design elements are in the same colors as the panel. An alternating row of red and light blue beads are sewn to the edge of the flap. The ties, widened at the distal end, are fringed and ornamented with rows of light blue beads (fig. 44b).

Like the previously described bag, the seventh has a long, triangular flap, fringed at the end in front, but there are three rather than two earlike flaps at the top. On the beaded panel the background color is light blue and the design elements are in dark blue, red, yellow, and pink beads. The panel is edged on two sides with a row of pink beads that extends to the top of the bag where the three earlike flaps are edged with black beads. The long triangular flap is beaded in the same colors as the panel and is edged with black beads (fig. 43b).

The collection contains a round wooden *tobacco board* for cutting and mixing tobacco. It is ornamented around the edge with a row of brass tacks and there is a similar row 6 cm in from the edge. The center, inside this second circle of tacks, is deeply worn and covered with numerous knife scratches. There is a suspension hole near the edge (fig. 41b).

CHARMS—According to Ewers (1958, p. 101), a newborn baby's navel cord was cut, dried, and preserved in a beaded case to protect the child from illness. He noted that boys' navel cord cases were usually in the form of a snake, while those of girls were lizard-shaped.

The collection contains two *navel cord cases,* both diamond-shaped and possibly representing stylized lizards. The first is covered with blue and white beads on one surface, and there is a short suspension strap on the opposite side. Suspended from this case are eight strands of large dark red beads, four with small brass bells at the ends. The second and smaller case is covered on one side with light blue beads edged with a row of dark red beads. In the center is a geometric design in clear

and blue beads edged with dark red beads. A short suspension strap extends from the opposite side.

Wissler (1912, pp. 242–244, fig. 33) described the "iniskim," or buffalo rock, as being the most widely distributed Blackfoot medicine. Although the iniskim had a distinct ritual, and ownership could be acquired by transfer, anyone who found one of these stones could keep and care for it. Any pebble resembling an animate object was certain to be regarded as an iniskim, but Wissler noted an assortment of oddly shaped pebbles and fossils kept in medicine bundles. He defined a medicine bundle as "any object or objects, kept in wrappings when not in use, guarded by the owner according to definite rules and associated with a ritual containing one or more songs." An iniskim was kept in a bag and hung on a tripod behind the tipi. It seems to have been used in a ritual for calling buffalo.

The collection contains two *buffalo rocks,* the first of which has an obvious resemblance to an animal and is tightly encased in a fringed bag of soft deerskin; there is a suspension strap of the same material. The second buffalo rock, a gift from Robert N. Wilson, is simply an irregularly shaped fragment of a fossil, possibly a bone. It is black with a lighter core and appears to have been polished.

Eighteen small, notched *arrowheads* of chert, each one lashed to a strip of tanned buckskin with sinew and membrane, are tied together to form a bunch. The purpose of this assemblage is unknown, but the arrowheads may have been found by someone and tied together to create a charm.

By the middle of the 19th century, the Sun Dance was the most important tribal religious festival of the Blackfoot, a demonstration of ceremonial functions in which all important ritual owners and organizations took part (Wissler, 1918, p. 229; Ewers, 1958, pp. 174–175). One of the most important Blackfoot medicine bundles was the Sun Dance bundle, or "Natoas," which, according to Wissler (1912, pp. 209–210), was primarily a woman's bundle because the husband played a lesser role in its ceremonies. He described a Sun Dance bundle in the American Museum of Natural History as containing a "sacred headdress for the sun dance woman, bag of badger skin for the sacred headdress, a digging stick to accompany the headdress, a case of rawhide for the headdress and bag of badger skin, a shawl for covering the bundle, bladder bags for feather bunches of the headdress when in the bag of badger skin, another weasel skin, and gopher skin." The Sun Dance bundle was covered with the shawl and kept in the rawhide case suspended from a tripod.

The collection contains a single cylindrical *medicine bundle case* of waterproof rawhide without any of the contents. It is made from a single piece, cut so as to form a tapering tube, with separate top and bottom pieces, all of them laced together with long strips of tanned skin that form elaborate fringes; the strands are longest at the top of the case. A suspension strap is placed so that the case is suspended in a slanting position with the fringe strands being approximately horizontal. The sides are painted with geometric designs, including diamonds and triangles, in red, blue, and yellow pigments. The top and bottom are decorated with concentric circles in the same colors. Medicine bundle cases are described and illustrated by Wissler (1910, p. 78, fig 43, 1912, pp. 209–210, fig. 27). They were usually used for ceremonial regalia, not exclusively for Sun Dance items.

Musical Instruments—Wissler (1910, p. 85, fig. 53) noted that rattles varied in size according to the ceremonies in which they were used. He described the most common type as having a bulb shaped from wet skin being filled with sand. When dry, the sand was removed and pebbles and a wood handle were inserted; the handle was wrapped with thongs. During rituals the rattlers, with a rattle in each hand, rested on their knees in front of sheets of rawhide spread on the ground; the rattlers made "vigorous downward strokes" (Wissler, 1912, p. 190). The collection contains two such bulb-shaped *rattles.* The skin bulbs consist of two pieces sewn together with sinew. The handles are of bone wrapped with strips of cloth (fig. 45b–c).

The collection also contains a single *ring-shaped rattle,* a form that Wissler (1910, p. 85) noted was used in some rituals. It is round, flat, and covered front and back with two pieces of intestine stitched together with sinew around the rim. A wood handle wrapped with intestine extends from one side, at the end of which is a large, trimmed feather. Faint designs in red, blue, and green pigments occur on both sides of the ring (fig. 45a).

Also unique is a *drum stick/rattle* that has a bulb made from two pieces of skin sewn together with sinew and a long handle wrapped with red wool stroud fringed at both ends. Extending from the top of the bulb are short strips of ermine skin decorated with red yarn and two bunches of horsehair wrapped at the proximal end with porcupine quills. The proximal end of the handle is ornamented with long strips of red cotton cloth (fig.

45d). This type of rattle was commonly used by members of warrior societies.

The collection contains four *tambourine drums* that were used in social dances, in games, in treatment of the sick, and during the transfer of medicine bundles (Wissler, 1911; Ewers, 1958, pp. 160, 184).

The frame of the first drum is made from a rectangular strip of wood 5 cm wide that has been steamed and bent to form a hoop; the overlapping ends are held together loosely with string. The drum head is made of heavy rawhide stretched over the frame. A rawhide thong is looped through holes along the inner edge and similar thongs extend at right angles across the open side of the instrument to form a handhold. The drum head and thongs were applied wet to the frame and when dry stretched tight to hold the frame in place. The drum head is decorated with a band of green pigment around the edge and indistinct designs in the same color in the center (fig. 46b). There is no stick to accompany this drum.

The second drum has a two-piece frame. The outer section is 6.5 cm wide and the other, which fits inside the first, is 3.5 cm wide and nailed to the outer frame. The drum head is made of scraped skin stretched over the frame and lashed to it through holes at approximate 3-cm intervals. Rawhide thongs extend across the open side to the center where knotted rawhide forms a handhold. The outer surface of the drum head has a broad band of dark brown pigment running around the edge and a large circle of the same color in the center. The inner surface is decorated with blotches of brown pigment. The drum stick is wrapped with cloth at the distal end (fig. 46a).

The frame of the third drum is 9.5 cm wide, the ends being lap-sliced and lashed with hide thongs. The drum head of scraped skin is lashed to the inside of the frame by thongs that pass along the inside and outside. Four thongs wrapped in the center with strips of rawhide form the handhold and there is also a thong wrist strap (fig. 47).

Although Dorsey provided virtually no information on the various objects he collected, his notebook does contain a sketch and some brief comments concerning the decoration on the outer surface of this drum head. The solid area of black pigment at the top is a dark cloud in the sky and the rest of the surface is painted with reddish-brown pigment. Extending from the cloud are the feet of a thunderbird, on either side of which are zigzag lines representing lightning. The circles of black pigment represent hail (fig. 48). There is no stick with this drum. The painting is typical on instruments associated with medicine pipe ceremonies.

The fourth drum has a frame 10 cm wide and the overlapping ends are nailed together. The drum head of scraped skin is stretched over the frame to a point about half its width and attached with thongs through holes at 5-cm intervals. Lengths of twine, knotted and wrapped with cloth in the center, form the handhold. The area of the drum head extending around the sides of the frame is painted with red pigment and there is a narrow band of dark brown pigment around the edge. In the center is a large red circle. The drum stick is entirely wrapped with strips of cloth (fig. 49).

Games and Toys

One of the most widely distributed North American Indian games was the hoop-and-pole game. Implements required for this game were a hoop or ring to serve as a target and a dart or pole. The object was to throw or shoot the pole at the hoop, the scoring being determined by the way in which the pole fell with reference to the hoop (Culin, 1907, p. 420).

Among the Blackfoot, this game, which is described in some detail by Ewers (1958, pp. 156–157), was played by competing members of the men's societies and accompanied by prayers to the sun and accounts of war exploits. The moving target in the game was a small hoop, inside of which were several spokes strung with different colored beads. Each of the two contestants carried a pole approximately 1 m in length that was feathered and had a metal head. One man rolled the hoop and both ran after it hurling their poles before the hoop struck a log at the end of the playing field. A player was considered the winner if his pole struck the center of the hoop or was in contact with the beads of a color previously selected. According to Ewers (1958, p. 157), young men played the game as a form of gambling.

The collection contains three *hoops* for the hoop-and-pole game. Each consists of a heavy metal ring wrapped with deerskin and painted with red pigment. The two larger hoops have eight spokes attached inside the rim, four of which are spirals of brass wire and the other four beads of different colors. The third hoop has six spokes, three with brass spirals and three beaded (fig. 50b).

Wissler (1911, p. 57, fig. 13) described a similar Blackfoot game in which the hoop was larger, net-

ted, and the poles were simple pointed sticks about 80 cm long. This game was played for amusement by young people. Culin (1907, pp. 443–444) described several hoop-and-pole games played by the Blackfoot in Montana and Alberta.

Blackfoot women played a variant of the widely distributed dice game in which three or four stick dice, marked on one side, were scattered on the ground, the thrower achieving a score based on the markings on the dice. A number of sticks, usually 12, were used as counters with this game (Culin, 1907, pp. 56–57).

The collection contains three bone *stick dice* that taper toward the ends. On the faces of two there are incised lines filled with red pigment, while the third has a series of holes painted blue (fig. 50a). Dorsey informed Culin that the stick marked with holes was called "man" and the other two were referred to as "snakes." He further noted, "Of the counts I have only this much: All marked faces up count 4; all unmarked faces up, 4; two unmarked and snake up, 6; one unmarked and two snakes up, 6; one unmarked, snake, and man up, 0" (Culin, 1907, p. 58). There are no counters accompanying these stick dice.

The only objects in the collection identified as toys are contained in a small parfleche (fig. 51e), which is referred to in the catalog as a "*parfleche pack containing toys, dolls outfit.*" The parfleche resembles the full-sized examples previously described and has geometric designs in red, yellow, blue, and brown pigments. The contents, a total of 37 items, include the following:

3 backrests edged with cotton cloth and decorated with beads and wool stroud (fig. 51c–d,h)
5 tripods for backrests made of willow twigs (fig. 51g)
9 dolls, five female (fig. 52b,e–f,j,m), three male (figs. 51a–b, 52h), and one infant (fig. 52k). With one exception (fig. 52b), all appear to be made of wrapped cloth and are dressed in patterned cotton cloth and wool stroud. The exception is a dressed ceramic figure
4 pillows of patterned cotton cloth stuffed with feathers or cloth (fig. 52g)
2 fringed Sun Dance medicine bundle cases of rawhide (fig. 52a,i)
2 blankets of quilted patterned cotton cloth (fig. 51i)
1 fringed clothes bag decorated with beads and wool stroud (fig. 52d)
1 fringed rawhide pouch with a beaded panel (fig. 52l)
1 miniature rawhide parfleche with geometric painted decoration (fig. 52o)
1 beaded knife sheath (fig. 52n)
1 fringed saddle bag of rawhide (fig. 52c)
1 robe of patterned cotton cloth with beaded rosettes (fig. 51f)
6 total fragments of lace, patterned cotton cloth, and wool stroud

Painted Ornamentation

Most of the previously described objects in the museum's Blackfoot collection are ornamented with glass trade beads. Only the model tipi cover (fig. 2), tipi back wall (fig. 3), woman's robe (fig. 24), rawhide cases (figs. 11–12, 18c), and one drum (fig. 48) are decorated extensively with painted designs. The Blackfoot had an elaborate tradition of painting on hide, and objects in the collection associated with this activity are described here.

The colors used in painting hides were mostly derived from minerals, but trade pigments were also used. Reds were obtained from crushed rocks and black from earth or charcoal. Yellows were obtained from earth and from buffalo gallstones. Although blues and greens were obtainable from earth pigment, the Indians preferred these colors available from traders (Wissler, 1910, p. 133; Ewers, 1939, pp. 3–4, 1958, p. 114).

Pigments were ground to a powder in small stone mortars and mixed with hot water or a glue obtained from hide scrapings or boiled beaver tail. This glue served to make the colors adhere to the hides. Sometimes the colors were simply mixed with water, applied to the hides, and then covered with the gluey substance, which helped to set the paint. During the painting process, the prepared paints were placed in hollow stones, clam shells, or turtle shells, each color having a separate container (Ewers, 1939, p. 4, 1958, p. 114).

Pigments were stored in paint bags of soft, tanned skin that resembled pipe bags in having flaps at the mouth and fringes across the bottom (Wissler, 1910, pp. 72–73, fig. 36). The collection contains 12 *paint bags,* all of which are constructed of two pieces of soft tanned skin with a separate attached fringe. Nine have four flaps at the top and three have six. Ten bags have beaded panels on one side, while on two there are panels on both sides. On all but one bag, a row of beads extends up the sides and around the edges of the flaps; two bags have skin ties. Typical examples are illustrated (figs. 7e, 50d–g).

For the application of paint, pieces of porous bone cut from the edge of a buffalo scapula or femur were used. Their honeycomb structure held the paint and allowed it to spread evenly over the surface of the hide. One edge was pointed for making fine lines, while the side was used for spreading the color over a large surface. A separate applicator was used for each color (Ewers, 1939, p. 4, 1958, p. 114). The collection contains four such *paint brushes,* identified in the catalog as having belonged to Mrs. Red Crow. On one, a portion of the articular surface of the head of a femur is visible. Two of these brushes were used with yellow pigment, one with red, and one with blue (fig. 50c).

According to Ewers (1958, p. 114), women painted geometric designs on rawhide cases, buffalo robes, and tipi back walls, while men painted human and animal forms on shields, drums, and tipi covers. Although representational painting was widely practiced by the Blackfoot, there is only one example in the collection. A *painting on cotton cloth* was presented to Dorsey by Robert N. Wilson.

Information in the catalog indicates that this painting, which utilizes commercial paints, was made by "Sepcotocum," or possibly "Sepiotocum," in 1893. Ted J. Brasser believes that the painter was "Sepiotaxkumi," Night Shoot, who is well remembered by Brasser's informants as a traditional artist and a painter of war records for the elders of his day. Night Shoot was born in 1865 and thus not an elder when he made this painting. He belonged to Chief Running Rabbit's band of Blood Indians who spent much of their time with the South Piegans in Montana. After the treaty was signed in 1877, this band remained permanently in Montana, although individuals like Night Shoot frequently visited their Blood relatives in southern Alberta. Night Shoot is said to have derived his name from shooting a Cree horse thief who attempted during the night to steal a horse from the Blackfoot camp (Ted J. Brasser, pers. comm., February 23, 1991).

This painting is divided into two equal halves. On one side are three pairs of tipis. Three are painted in solid colors (black, tan, brown) and three have horizontal banded borders at the top and bottom. One of these has a horizontal band across the center and all three have unpainted discs on one ear. These tipis are outlined in green and the other colors used are red, blue, and yellow.

The return of a successful war party is depicted on the upper part of the second half of this painting. Men, painted brown, some beating drums, are shown in front of a yellow tipi. They are being greeted by women dressed in men's feather headdresses, some carrying rifles and others with scalps on poles. The women's dresses are depicted in green, tan, blue, black, yellow, and red colors. Below this scene are two men on horseback. The horses, painted black and tan, have elongated necks and their bodies are somewhat distorted by horizontal elongation (fig. 53). Similar painted war histories are described and illustrated by Walton et al. (1985, pp. 222–230).

III. Conclusions

Although the Blackfoot are among the most studied North American Indian tribes and collections of their material culture are well represented in American and Canadian museums, relatively few studies have been devoted specifically to their manufactures. Wissler's (1910) pioneering study of Piegan and Blood material culture based on field research is the most notable example of such a study. His collections are in the American Museum of Natural History. More recent published studies of note are those of the Scriver collection in the Provincial Museum of Alberta (Scriver, 1991), and the Louis Warren Hill, Sr., collection in the Museum of the Plains Indian and the Science Museum of Minnesota (Walton et al., 1985).

The collections of George Dorsey and John Maclean acquired on the Blood Reserve in the late 19th century, somewhat earlier than Wissler's, are not as well documented. Nevertheless, it has seemed worthwhile to place them on record because, in the case of Dorsey's at least, they were obtained by the Field Museum under controlled circumstances at a time when traditional or modified traditional material culture was still available to the collector. Even though precise and detailed documentation is lacking, minimal archival and published information together with evidence provided by the artifacts themselves encourages examination of the collection from several perspectives: the collection and its collectors, the collection itself as an artifact, and the extent to which it can be considered representative of Blood material culture in the late 19th century.

As noted in the Introduction, Dorsey was on the Blood Reserve for a total of six days and recorded his purchases in a small notebook in which the price paid for each item is also recorded; the total cost of the collection was $172.25. Considering

the shortness of his stay and the fact that travel on the reserve was by horseback or horse and wagon, it seems improbable that such a large collection could have been acquired without the assistance of someone. The logical person to have provided such assistance was Robert N. Wilson, with whom, it will be recalled, Dorsey was staying and who was himself a keen observer and careful student of Blood Indian life as well as a trader. Perhaps many if not most of the objects Dorsey collected were already a part of trader Wilson's stock. Nevertheless, keeping in mind that Dorsey was making his first field trip for the museum and that he had no previous experience among a Plains tribe, he did remarkably well. A number of major categories of material culture are represented in his collection, and he seems to have been as interested in obtaining items made by women as those made by men.

There are, however, a number of gaps in the collection, and it cannot be considered to encompass the range of material culture items made by the Blood and related tribes. For example, items associated with transportation are minimal and there are no examples of men's headgear such as feather and horned headdresses. There are no war clubs, lances, or shields, no women's cloth dresses, no society paraphernalia, and no ceremonial bundles.

The accession records do not indicate that Dorsey worked from a prepared list of desired items. Even if he did not obtain the majority of his collection directly from Wilson, in a six-day visit he would have had little opportunity to question his informants in detail or to establish personal relationships with them. If, as suggested, Dorsey established his headquarters in the home or office of Wilson, then he may have purchased some items of material culture that were brought to him for sale. If he acquired most of the collection directly from Wilson, this would account for the lack of documentation. Dorsey may have felt that, considering the difficulties of travel on the reserve and the limited time at his disposal, obtaining a large number of items without documentation was better than acquiring a much smaller collection of documented materials. As noted in the descriptions, many of the items in the collection show signs of use and it seems certain that very little or nothing was made specifically for the collector. His short stay on the reserve would hardly have allowed sufficient time for replicas of traditional artifacts to be commissioned and manufactured.

For the collection made by John M. Maclean, there is, as previously noted, no documentation at all. This collection is so small that it is difficult to draw any conclusions concerning the objectives of the collector. For the World's Columbian Exposition, arrangements for collecting by formally organized field parties were usually preceded by negotiations resulting in memoranda of agreement that spelled out in detail items desired for display. Unfortunately, most of the collections acquired from individuals for the Exposition, and later transferred to the newly established Field Columbian Museum, are undocumented. About all that can be said concerning the items collected by Maclean is that virtually all of them show signs of use, sometimes hard use.

The purpose of Dorsey's expedition in 1897 was to secure materials for "the building of groups," presumably the creation of dioramas or dioramalike exhibits in the museum. Dorsey was essentially collecting for exhibition purposes, and because the Field Columbian Museum was at that time less than four years old, it seems likely that most of Dorsey's Blood collection was installed in exhibition cases within a few months of its arrival at the museum.

The question naturally arises as to whether or not artifacts in the Dorsey and Maclean collections were in use at the time the collections were made. According to Ewers (1958, p. 301), by the early 1880s traditional crafts were beginning to disappear. Tin plates, cups, knives, and forks replaced wood bowls, horn cups, and horn spoons. Indian-made saddles were replaced and trade blankets were used instead of buffalo robes for outer garments and as bedding. Most clothing was discarded in the 1890s, but because Indians found that shoes were uncomfortable, hide moccasins lasted long after other items of traditional clothing had been replaced (Ewers, 1958, p. 308). Many of the moccasins in the collections, especially those acquired from Maclean, show signs of considerable wear and thus may still have been in use at the time they were collected.

The revival of the Sun Dance at the end of the 19th century was said to have encouraged the wearing of traditional clothes. Women made clothing for the men and presumably for themselves (Ewers, 1958, pp. 311–312). Clothing and other items of traditional material culture were also made for visitors from other tribes. Some of the items described in this study may have been available for sale to the collectors as a result of renewed interest in this important ceremony. The Sun Dance may have played a major role in the

revitalization of traditional craftsmanship, but it is also likely that items of traditional material culture, long out of use, were preserved as heirlooms and that their sentimental value to their owners was outweighed by the unexpected opportunity to dispose of them for much-needed cash.

The Dorsey and Maclean collections are probably similar in content to others made in the late 19th century. Relatively rich in articles of clothing and clothing accessories, these collections contain few weapons or sacred materials. Items associated with warfare could not be obtained without considerable negotiation because they had become scarce, and it was too early to obtain ceremonial bundles as they were not for sale. Thus, regardless of whatever special conditions enabled Dorsey and Maclean to make the collections described in this study, the assemblage is probably fairly typical of Blood material culture in the final years of the 19th century.

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Appendix

The Dorsey (Accession 524) and Maclean (Accession 28) Blackfoot (Blood) Collections

Following is a list of the Dorsey and Maclean Blackfoot (Blood) collections described in this study. It is not a complete list of the collections as they appear in the catalog of the Department of Anthropology, Field Museum of Natural History, because artifacts represented by 14 catalog numbers could not be located. Artifact identifications are, with a few exceptions, those provided by the collectors. Numbers in the 16000s are items in the Maclean collection.

Shelter

51682	model tipi cover (fig. 2)
51601	back wall (fig. 3)

Subsistence

51662	bow and 12 arrows (fig. 4a–b)
16212	quiver and bow case (fig. 5b)
16213	arrows (12) (fig. 4d)
16214	arrows (12) (fig. 4c)
16215	arrows (10) (fig. 4e)
51628	arrow shaft straightener (fig. 7a)
51596	gun case (fig. 5a)
51574	gun case (fig. 6)
51639	signal glass and case (fig. 7d)
51566	knife sheath (fig. 7f)
51578-1	knife sheath (fig. 8e)
51578-2	knife sheath (fig. 7b)
51613	knife sheath (fig. 7c)
51677-1,2	knife sheath and paint bag (fig. 7e)

Tools

51585	hide flesher (fig. 8f)
51626	hide flesher (fig. 8g)
51583	hide scraper (fig. 8b)
51584	hide scraper (fig. 8a)
51623	hide scraper
51633	hide scraper
51661	hide scraper
51629	stone hammer (fig. 8c)
51688	stone hammerhead (fig. 9c)
51604	stone hammerhead (fig. 9d)
51681	knife sharpener (fig. 8d)
51579	knife sharpener
51676	awl case (fig. 9b)
51636	awl case with "spy glass" in case (fig. 9a)

Transportation

16211	quirt (fig. 15c)
16201	quirt (fig. 10a)
16229	quirt (fig. 10b)
51572	quirt (fig. 10c)
51651-1,2	parfleches (fig. 11)
51591-1,2	saddle bags (fig. 12)

Household Equipment

51597	backrest (fig. 13)
51659	three-pole backrest stand (fig. 14)
51644	wood bowl (fig. 16c)
51599	wood bowl (fig. 15a)
51657	wood bowl (fig. 16b)
51653	wood bowl (fig. 15b)
51689	wood bowl (fig. 16d)
51670	wood bowl (fig. 16a)
51695	horn ladle or dipper (fig. 17a)
51620	horn ladle or dipper (fig. 17f)
51634	horn ladle or dipper (fig. 17c)
51665	horn ladle or dipper
51667	horn ladle or dipper
51666	horn ladle or dipper (fig. 17e)
51605	horn ladle or dipper (fig. 17d)
51684	wood ladle or dipper (fig 17b)
51668	buffalo (?) fetus berry bag
51607	buffalo (?) fetus berry bag
51669	calf (?) fetus berry bag (fig. 18d)
51663	deerskin or antelope skin pouch (fig. 18a)
51618	swan's foot pouch (fig. 18b)
51680	intestine pouch with porcupine quills
16233	beaded pouch
51575	rawhide pouch (fig. 18c)

Clothing

Dresses and Shirts

51561	woman's dress (figs. 19–20)
51563	woman's dress (fig. 21)
51686	woman's dress (fig. 23)
16223	woman's dress (fig. 22)
51562	woman's robe (fig. 24)
51660	"war shirt" (figs. 25–26)
51675	"war shirt" (fig. 27)
51674	"war shirt" (fig. 28)
16232	child's coat (fig. 29)

Leggings

51581	girl's leggings (fig. 30a)
16228	woman's leggings (fig. 30b)
51664	woman's leggings (fig. 30c)
51649	woman's leggings (fig. 30d)
51570	man's leggings (fig. 31b)
51646	man's leggings (fig. 32a)

51612 man's leggings (fig. 32b)
16225 man's leggings (fig. 31a)
16210 child's leggings (fig. 34a)

Belts and Armbands

51630 woman's belt (fig. 33b)
51622 woman's belt (fig. 33c)
51573 belt (fig. 33a)
51652 deerskin armbands (fig. 34b)
51648 armbands (fig. 34c)

Moccasins

51694 moccasins (fig. 35a)
16219 moccasins (fig. 35c)
51608 moccasins (fig. 35b)
51586 moccasins (fig. 36b)
51587 moccasins (fig. 36a)
51588 moccasins (fig. 36c)
51569 moccasins (fig. 37a)
16231 moccasins (fig. 37c)
51627 moccasins (fig. 37b)
16239 moccasin uppers (fig. 34e)
16238 moccasin uppers (fig. 34d)

Clothing Ornamentation

16162 buckskin rosettes (fig. 38c)
16177 buckskin rosette (fig. 38b)
16242 buckskin rosette
51655 buckskin rosettes (fig. 38a)
51576 buckskin rosettes (fig. 38d)
16056 buckskin rosette (fig. 38f)
16167 buckskin rosette (fig. 38g)
15905 buckskin rosette (fig. 38e)
51564 strips for shirt or leggings (fig. 38i)
51656 strips for shirt or leggings (fig. 38k)
51671 gopher skins (fig. 38j)

Personal Adornment

51602 earrings (3) (fig. 38h)
51567 man's necklace (fig. 39a)
51641 man's necklace with tweezers (fig. 39b)
51638 man's necklace (fig. 39c)
51615 young man's breast ornament (fig. 39e)
16163 brass bracelets (40) (fig. 39f)
16222 hand mirror with case (fig. 39d)

Ceremonial Equipment

Pipes and Related Objects

51632 "old ceremonial pipe" (fig. 40d)
51624 pipe (fig. 40c)
51594 "Chief Red Crow's pipe" (fig. 40b)
51568 pipe (fig. 41e)
51595 pipe (fig. 41d)
51647 pipe (fig. 41f)
51609 pipe (fig. 40a)
51645 small pipe (fig. 41c)
51643 pipe tamper (fig. 41a)
51679 pipe tamper (fig. 41g)
51565 pipe bag (fig. 42a)
51589 pipe bag (fig. 42b)
51614 pipe bag (fig. 43a)
51606 pipe bag (fig. 43c)
51617 pipe bag (fig. 44a)
51592 pipe bag (fig. 44b)
16221 pipe bag (fig. 43b)
51580 tobacco board (fig. 41b)

Charms

51571 charm, contains naval cord
51635 charm, contains naval cord
51637 charm, buffalo rock
51673 charm, buffalo rock
51687 charm (?), arrowheads (18) tied in a bunch
51593 medicine bundle case

Musical Instruments

51621 medicine man's rattles (2) (fig. 45b–c)
16230 medicine rattle (fig. 45a)
51685 drum stick/rattle (fig. 45d)
16227 drum (fig. 46b)
51650 drum and stick (fig. 46a)
51683 medicine drum (figs. 47–48)
51631 medicine drum and stick (fig. 49)

Games and Toys

51642 hoops for the hoop-and-pole game (3) (fig. 50b)
51654 stick dice (3) (fig. 50a)
51625 "parfleche pack containing toys, dolls' outfit" (37) (figs. 51–52)

Painted Ornamentation

16205 paint bag (fig. 50e)
16237 paint bag
16240 paint bag
16241 paint bag
51577-1 paint bag
51577-2 paint bag (fig. 50f)
51590-2 paint bag
51590-3 paint bag (fig. 50d)
51600 paint bag
51640 paint bag (fig. 50g)
51658 paint bag
51677-1,2 paint bag with knife sheath (fig. 7c)
51582 paint brushes (4) (fig. 50c)
51678 painting on cotton cloth (fig. 53)

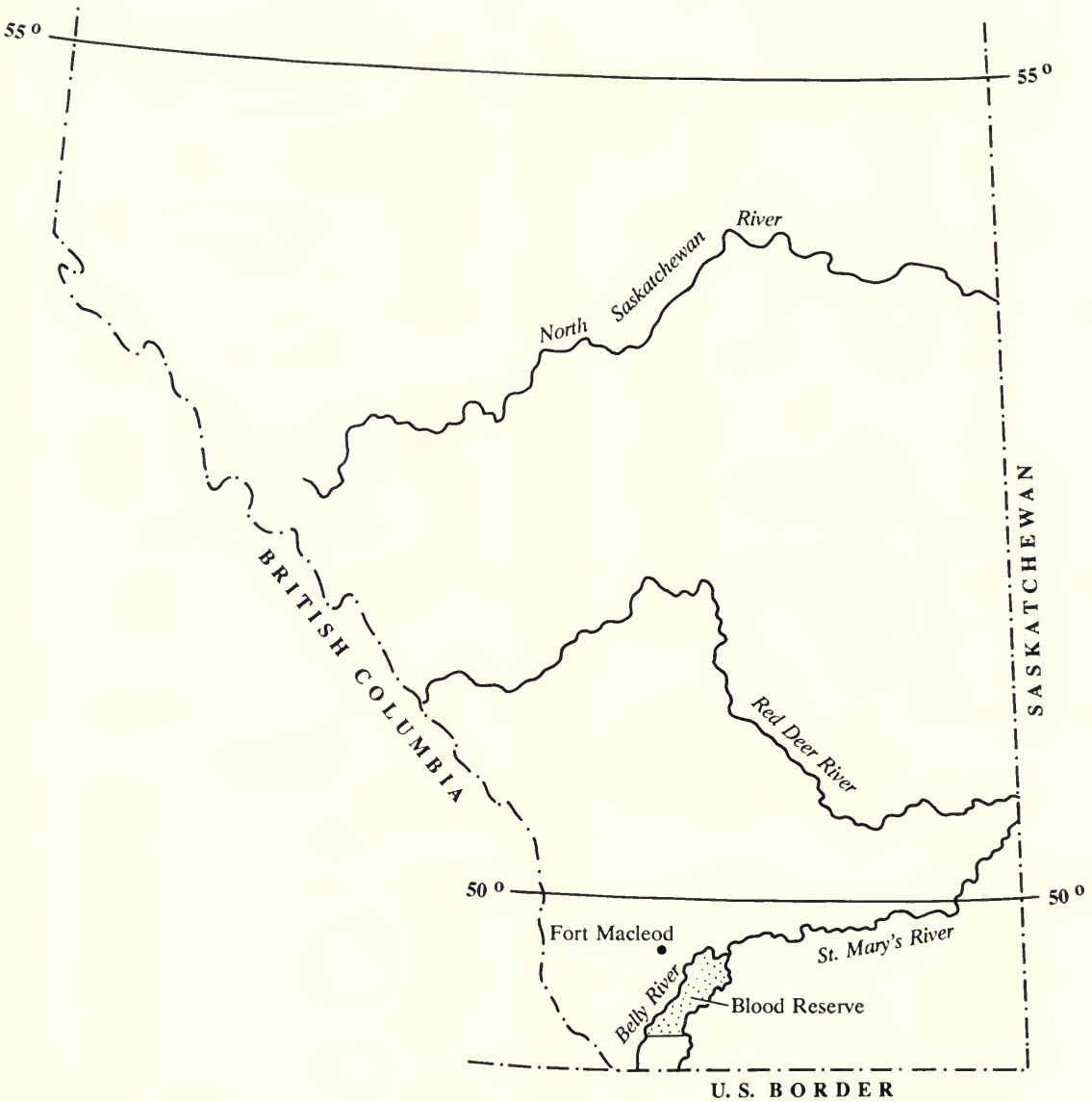

FIG. 1. Map of central and southern Alberta.

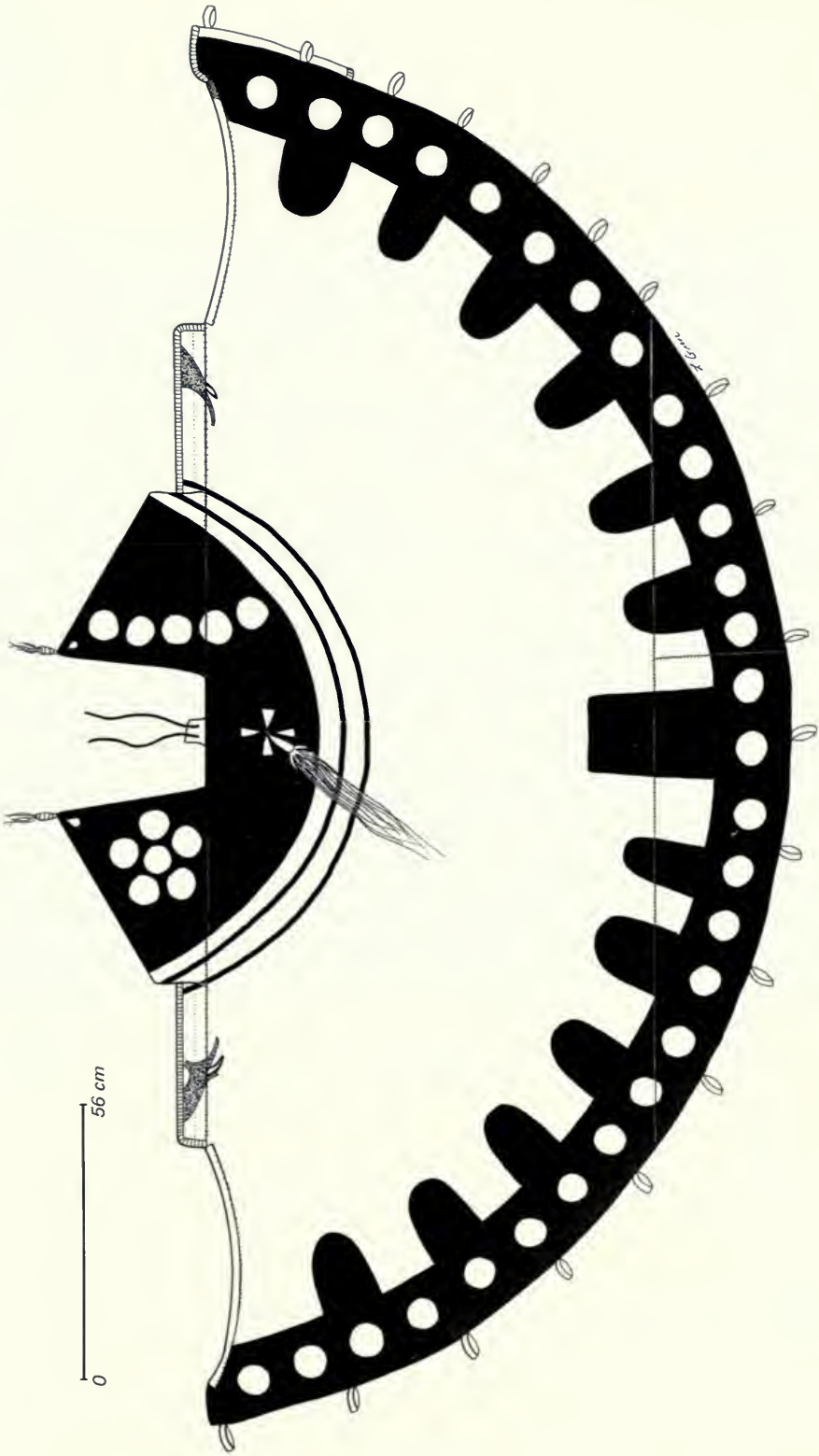

FIG. 2. Model tipi cover (51682).

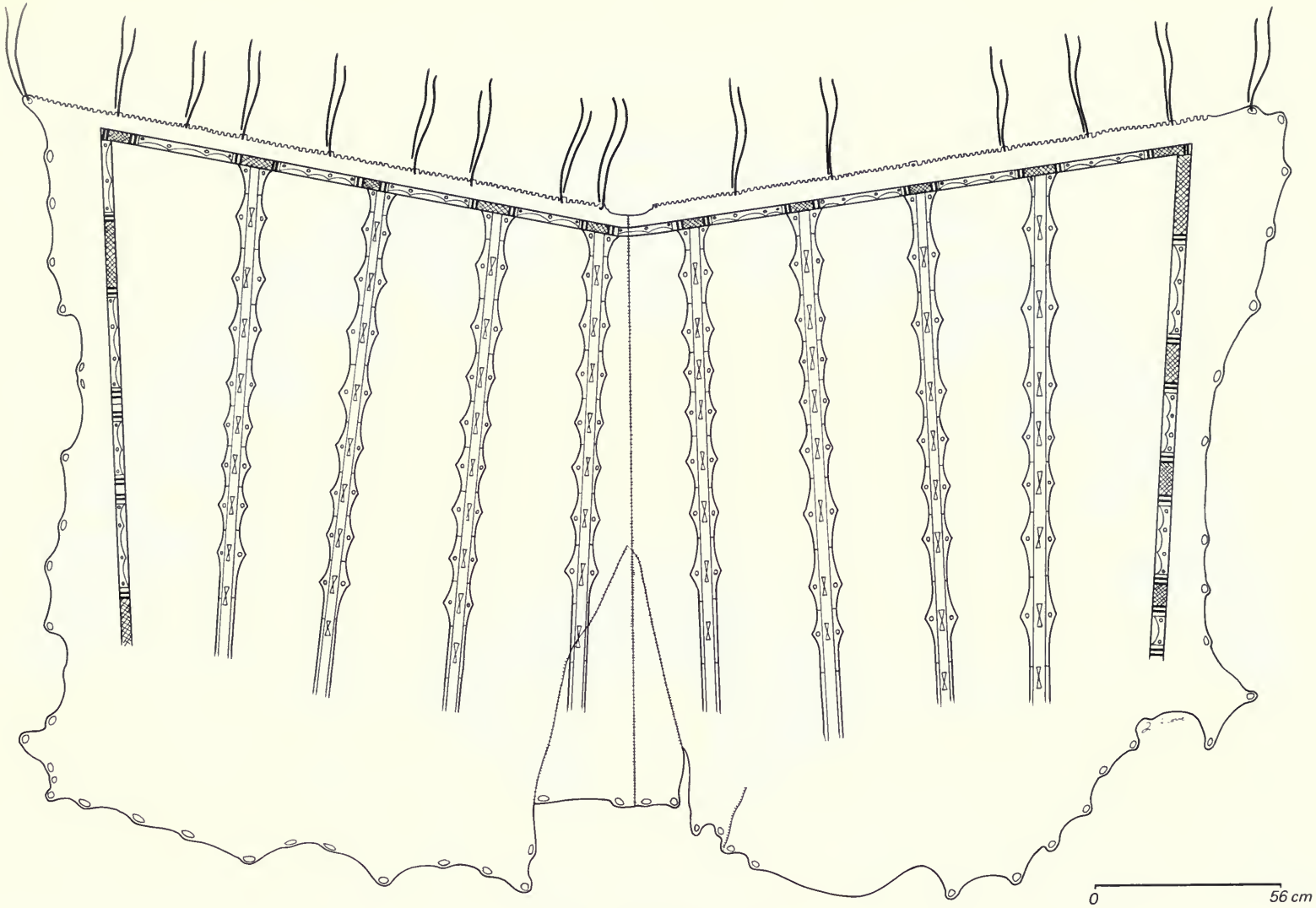

FIG. 3. Back wall (51601).

FIG. 4. **a**, bow (51662); **b**, arrow (51662); **c**, arrow (16214); **d**, arrow (16213); **e**, arrow (16215). (Neg. no. 111743.)

FIG. 5. **a,** gun case (51596); **b,** quiver and bow case (16212). (Neg. no. 111741.)

FIG. 6. Gun case (51574). (Neg. no. 111742.)

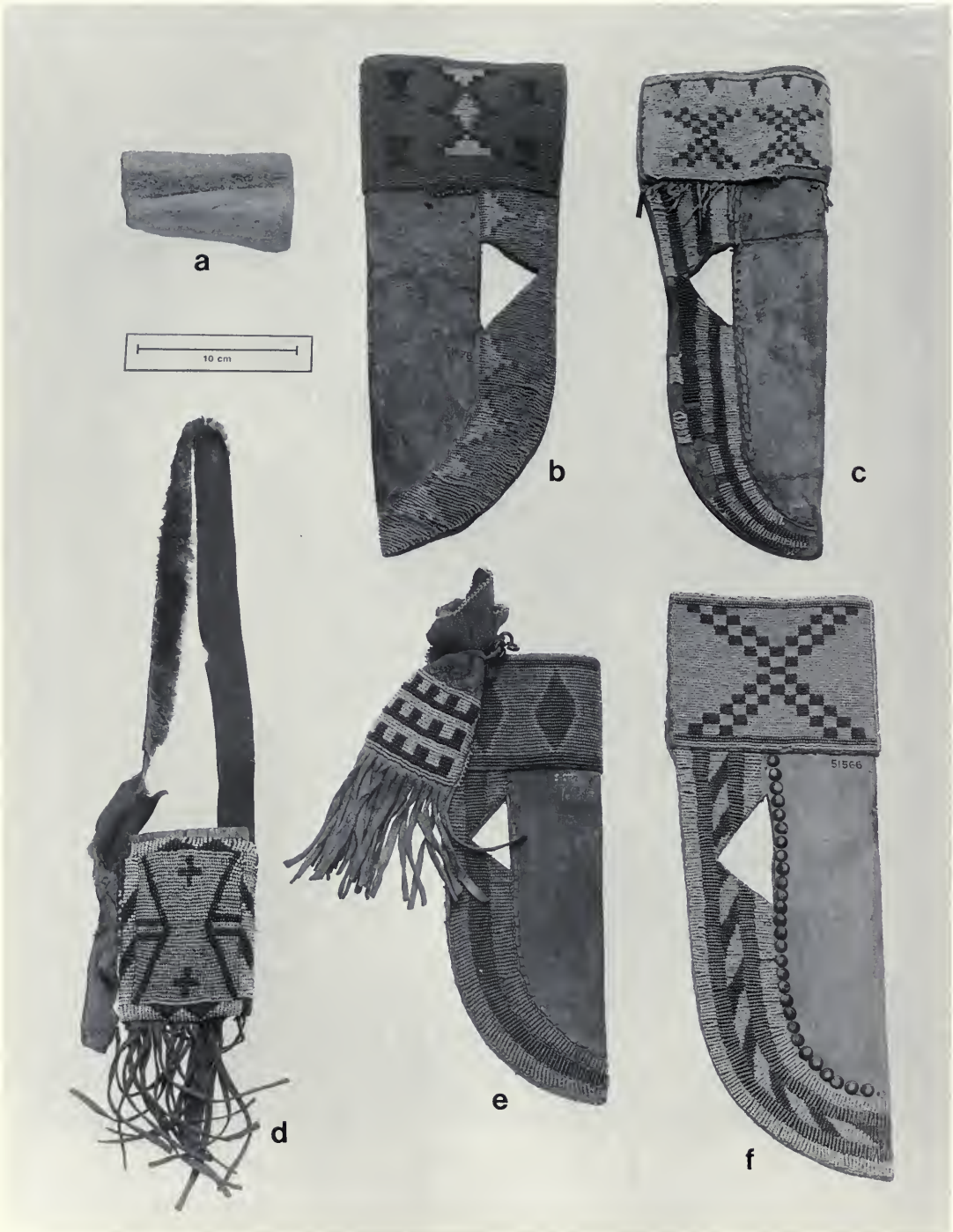

FIG. 7. **a,** arrow shaft straightener (51628); **b,** knife sheath (51578-2); **c,** knife sheath (51613); **d,** signal glass (51639); **e,** knife sheath and paint bag (51677); **f,** knife sheath (51566). (Neg. no. 111740.)

FIG. 8. **a,** hide scraper (51584); **b,** hide scraper (51583); **c,** hammer (51629); **d,** knife sharpener (51681); **e,** knife sheath (51578-1); **f,** hide flesher (51585); **g,** hide flesher (51626). (Neg. no. 111739.)

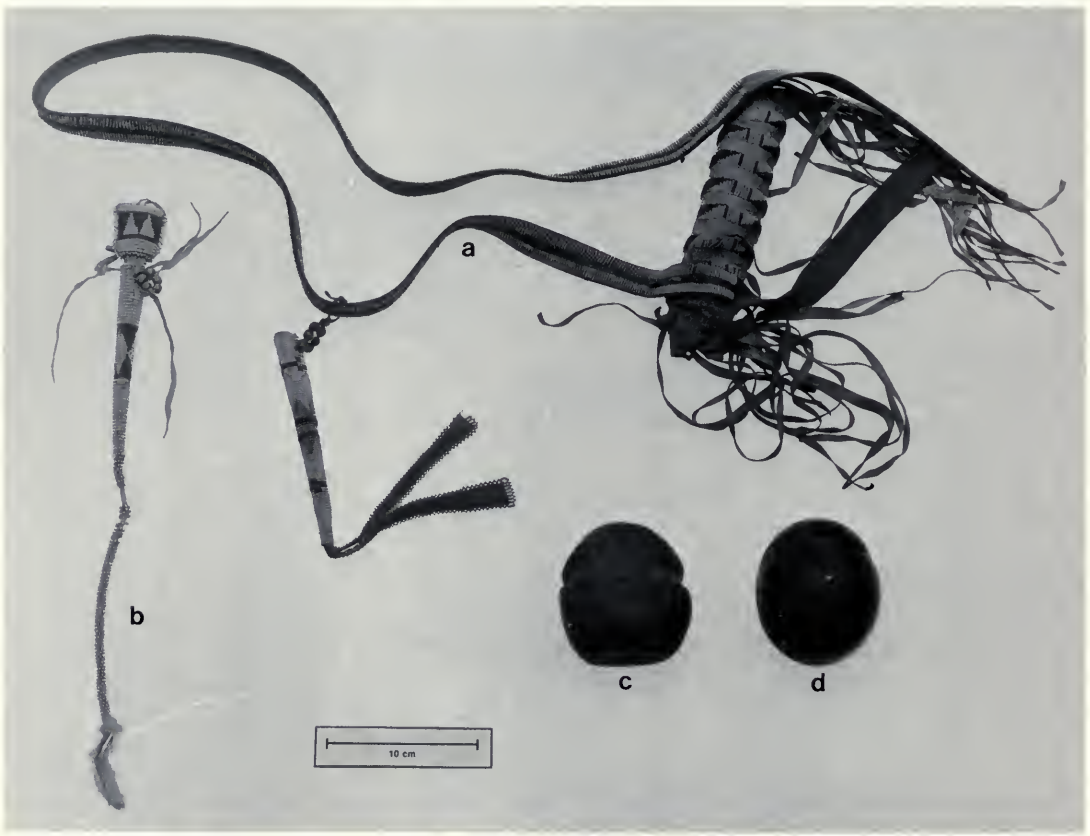

FIG. 9. **a,** awl case with "spy glass" in case (51636); **b,** awl case (51676); **c,** hammerhead (51688); **d,** hammerhead (51604). (Neg. no. 111769.)

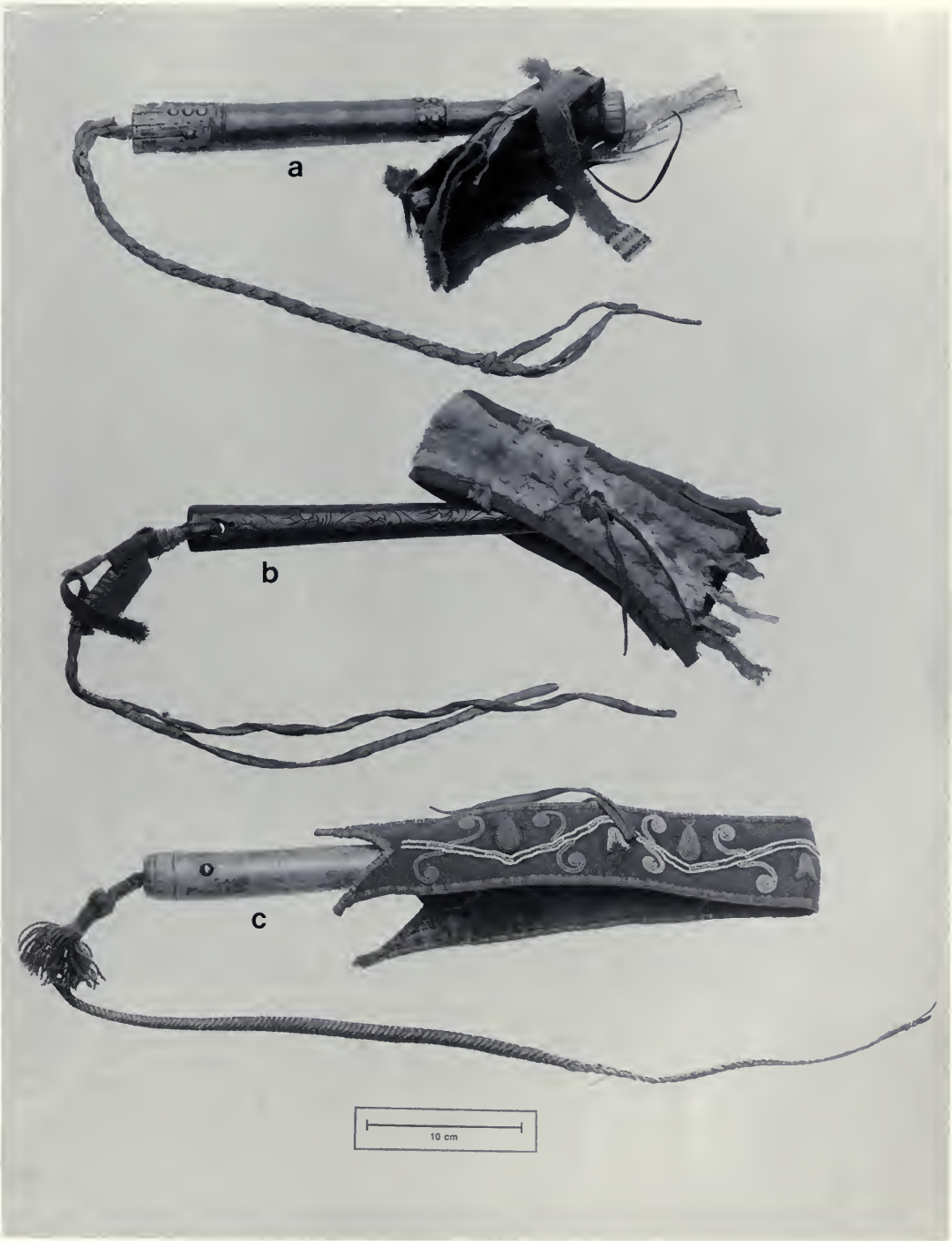

FIG. 10. **a**, quirt (16201); **b**, quirt (16229); **c**, quirt (51572). (Neg. no. 111752.)

FIG. 11. Parfleche (51651-1). (Neg. no. 111747.)

FIG. 12. Saddle bag (51591-1). (Neg. no. 111746.)

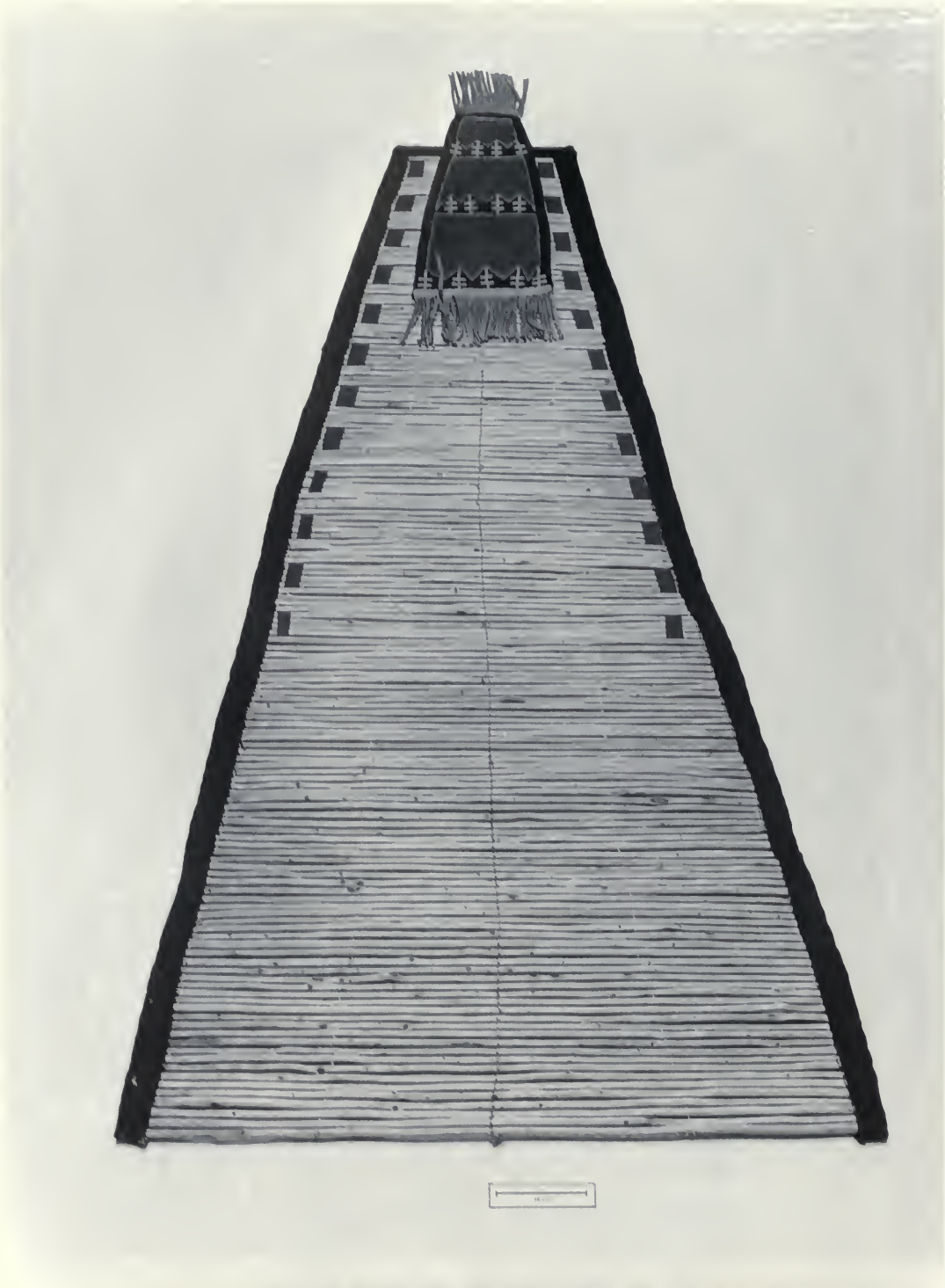

Fig. 13. Backrest (51597). (Neg. no. 111737.)

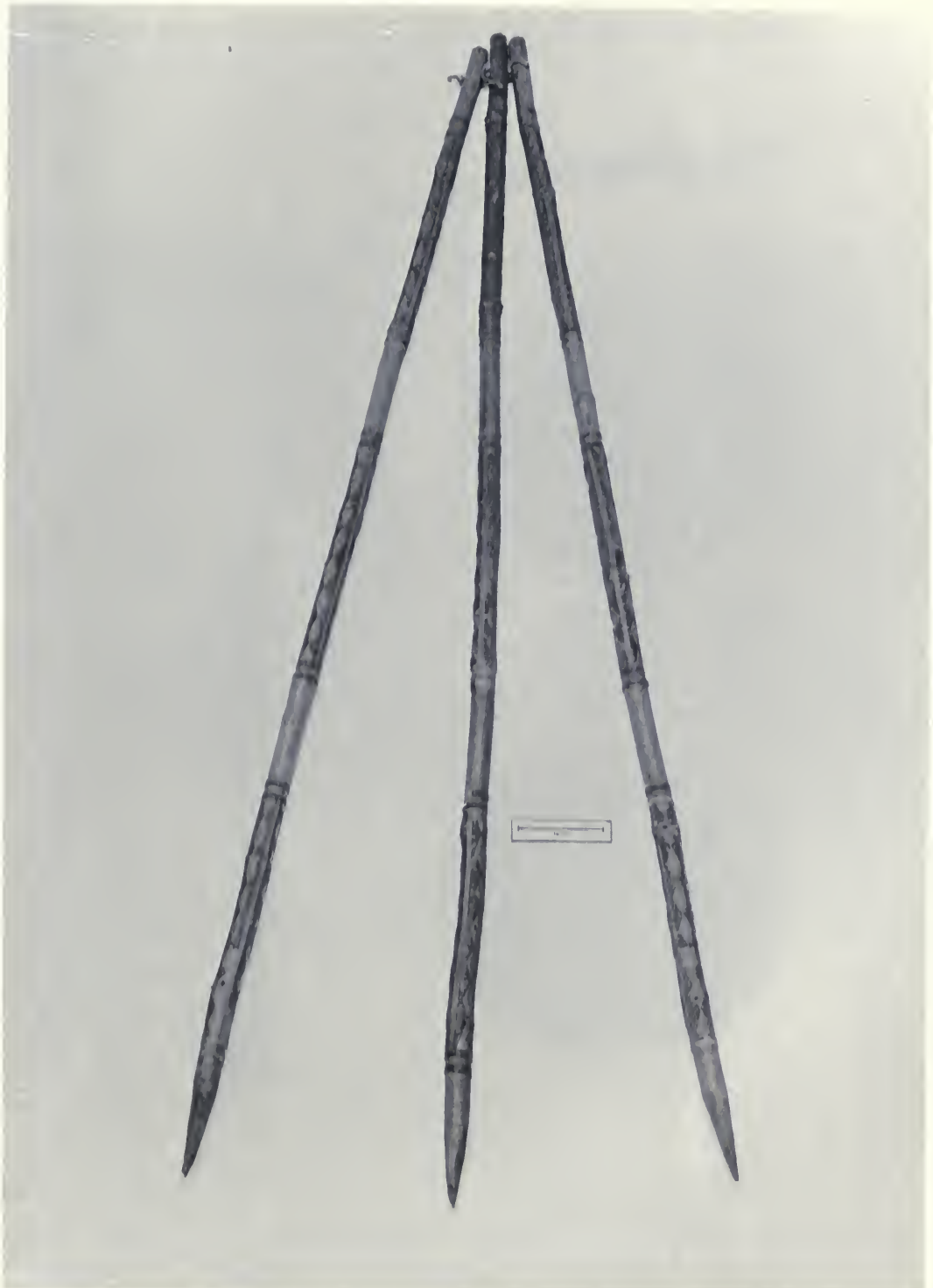

FIG. 14. Three-pole backrest stand (51659). (Neg. no. 111735.)

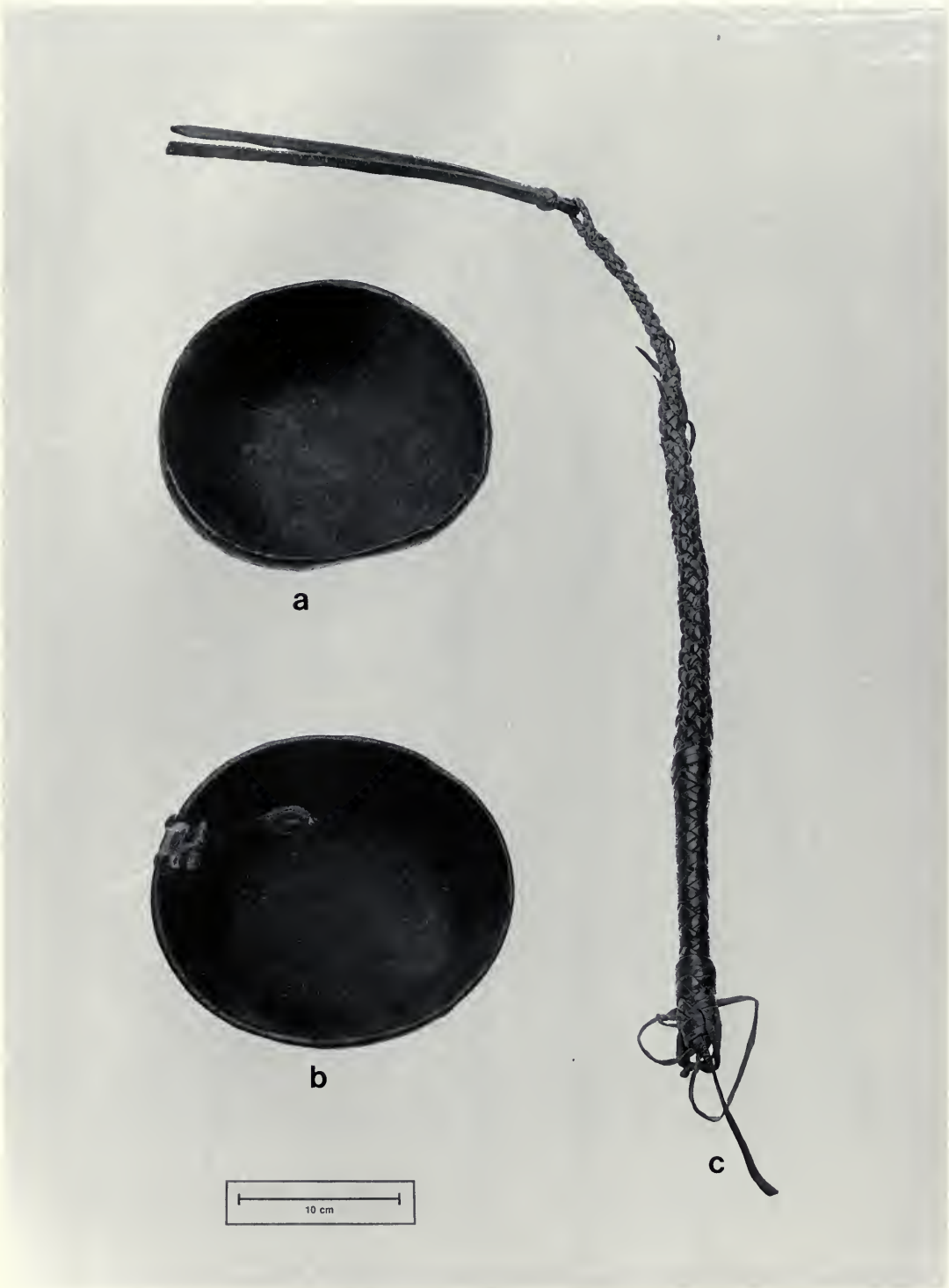

FIG. 15. **a**, wood bowl (51599); **b**, wood bowl (51653); **c**, quirt (16211). (Neg. no. 111749.)

FIG. 16. **a,** wood bowl (51670); **b,** wood bowl (51657); **c,** wood bowl (51644); **d,** wood bowl (51689). (Neg. no. 111748.)

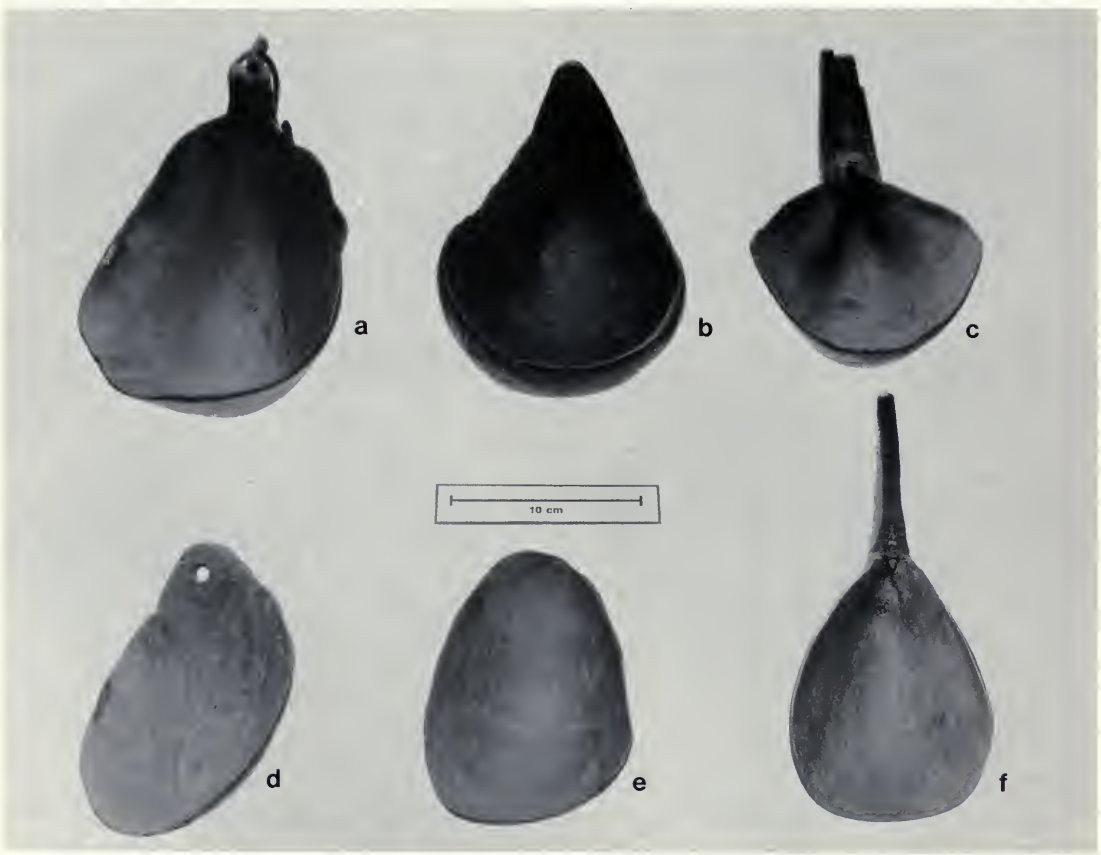

FIG. 17. **a,** horn ladle or dipper (51695); **b,** wood ladle or dipper (51684); **c,** horn ladle or dipper (51634); **d,** horn ladle or dipper (51605); **e,** horn ladle or dipper (51666); **f,** horn ladle or dipper (51620). (Neg. no. 111751.)

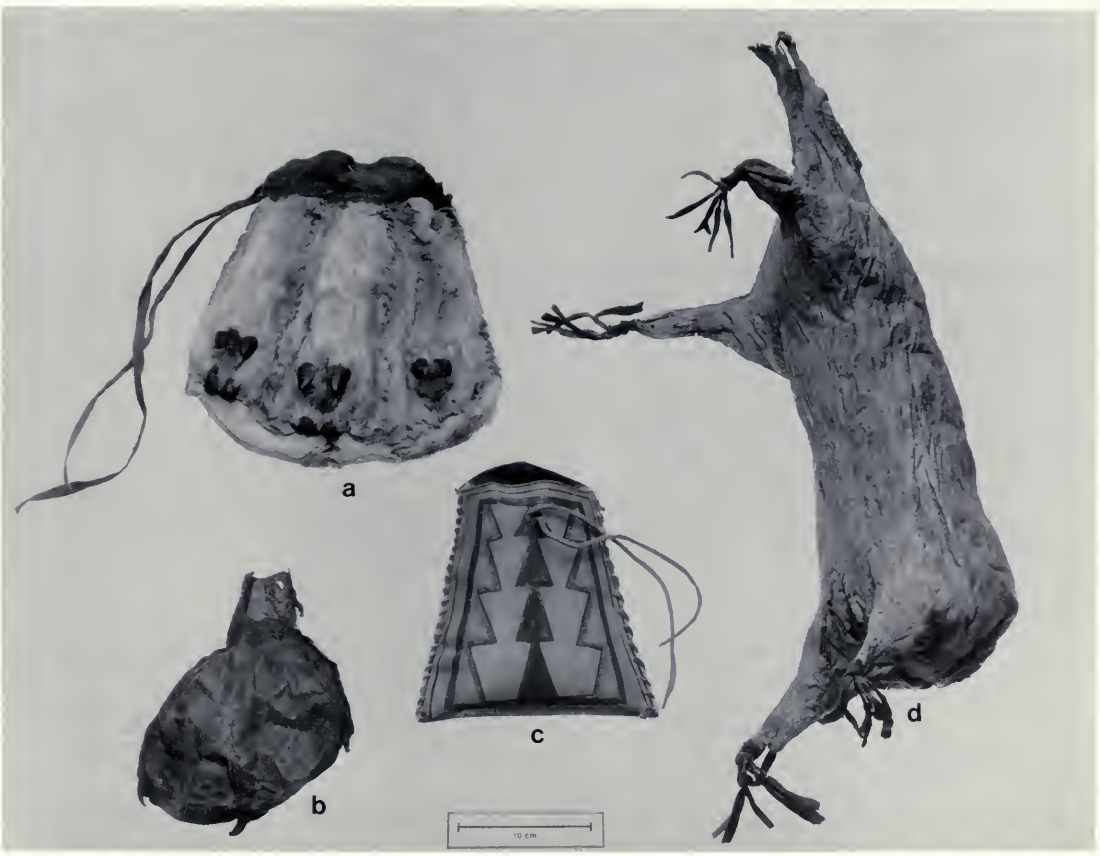

FIG. 18. **a**, deerskin or antelope skin pouch (51663); **b**, swan's foot pouch (51618); **c**, rawhide pouch (51575); **d**, calf (?) skin fetus berry bag (51669). (Neg. no. 111750.)

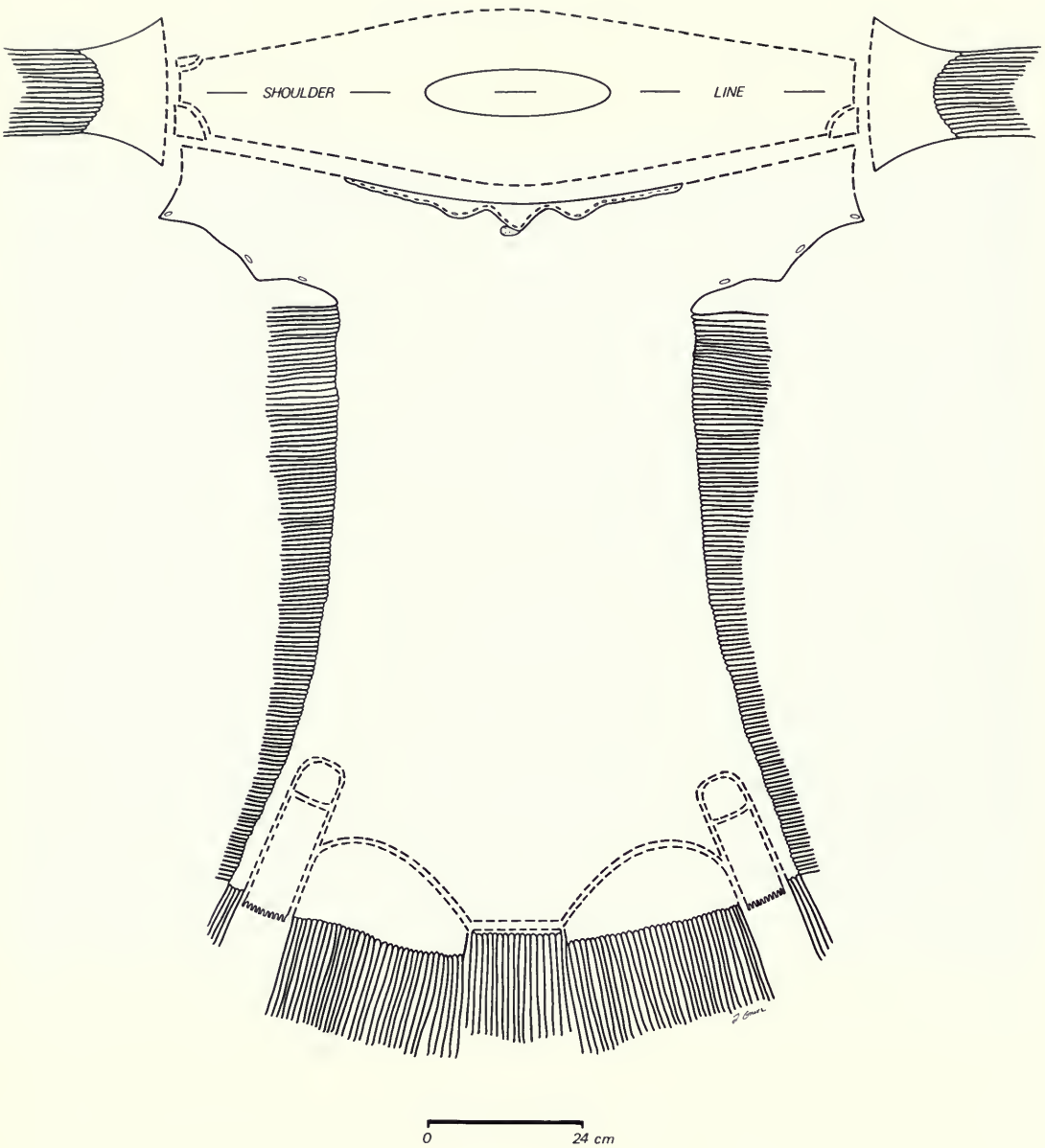

FIG. 19. Woman's dress (51561).

FIG. 20. Woman's dress (51561). (Neg. no. 111732.)

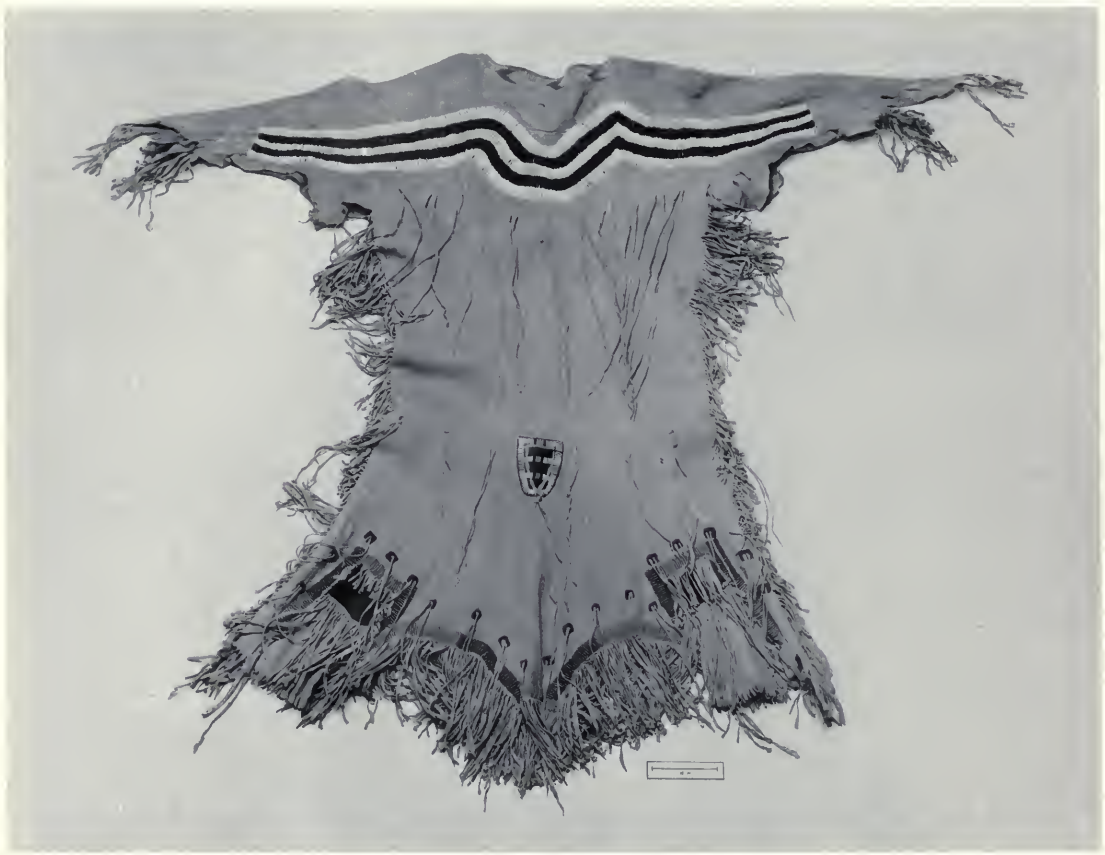

FIG. 21. Woman's dress (51563). (Neg. no. 111729.)

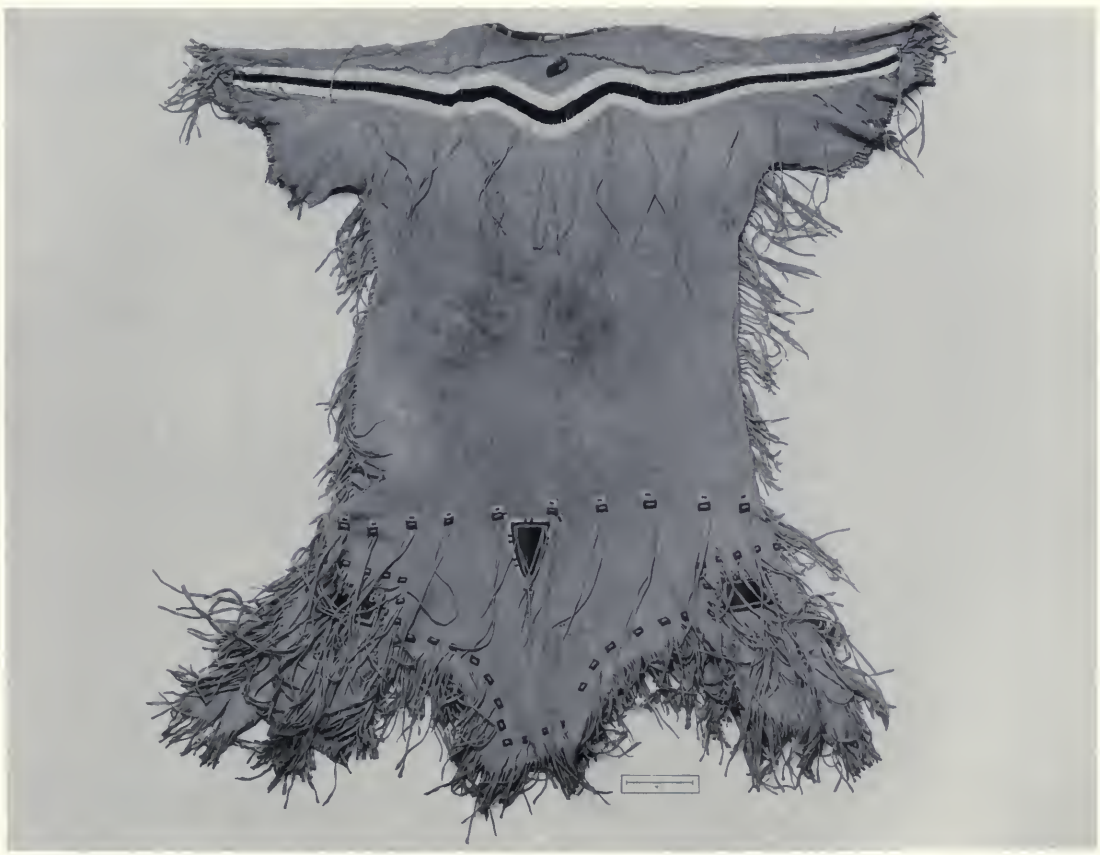

FIG. 22. Woman's dress (16223). (Neg. no. 111728.)

FIG. 23. Woman's dress (51686). (Neg. no. 111731.)

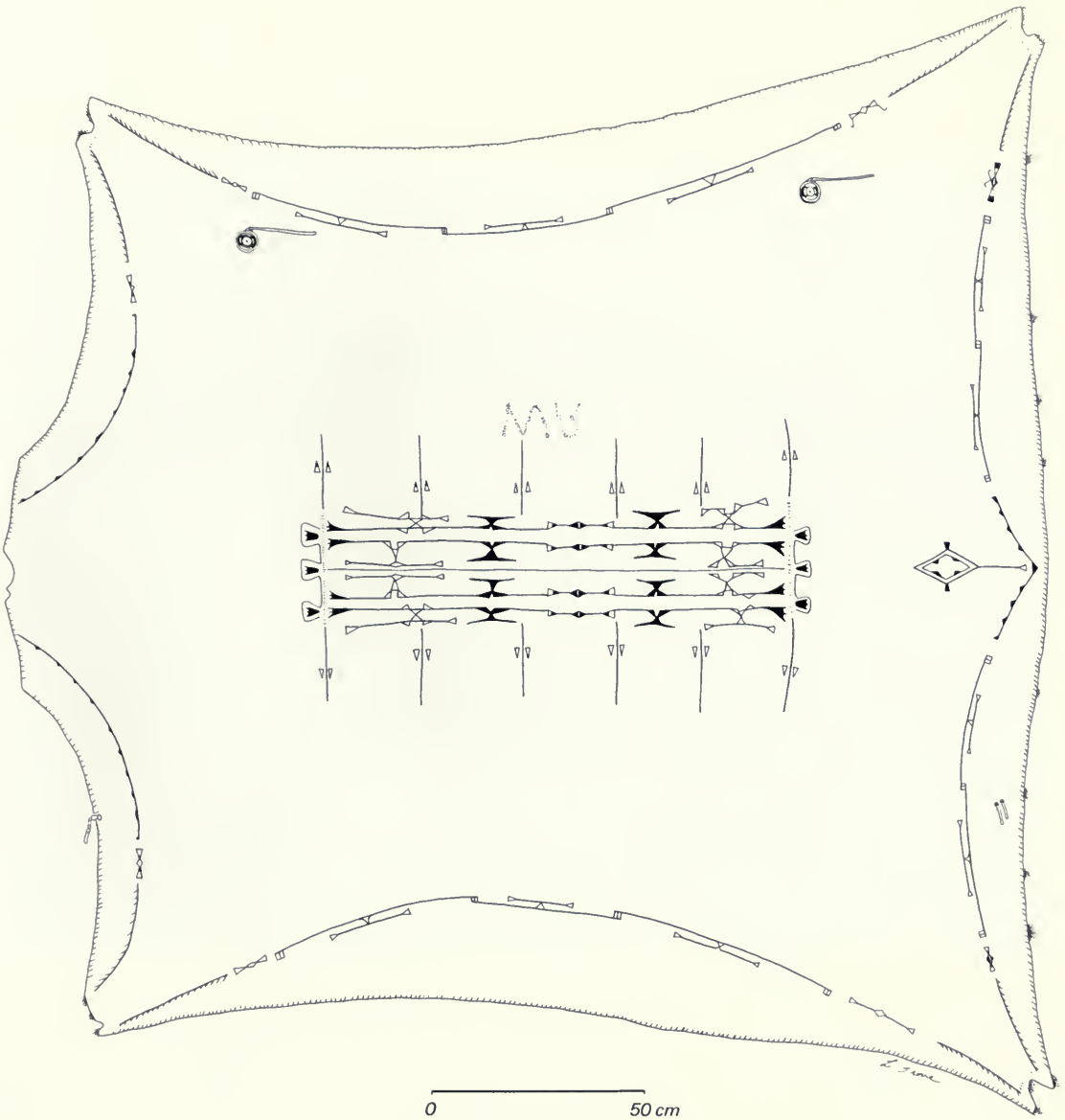

FIG. 24. Woman's robe (51562).

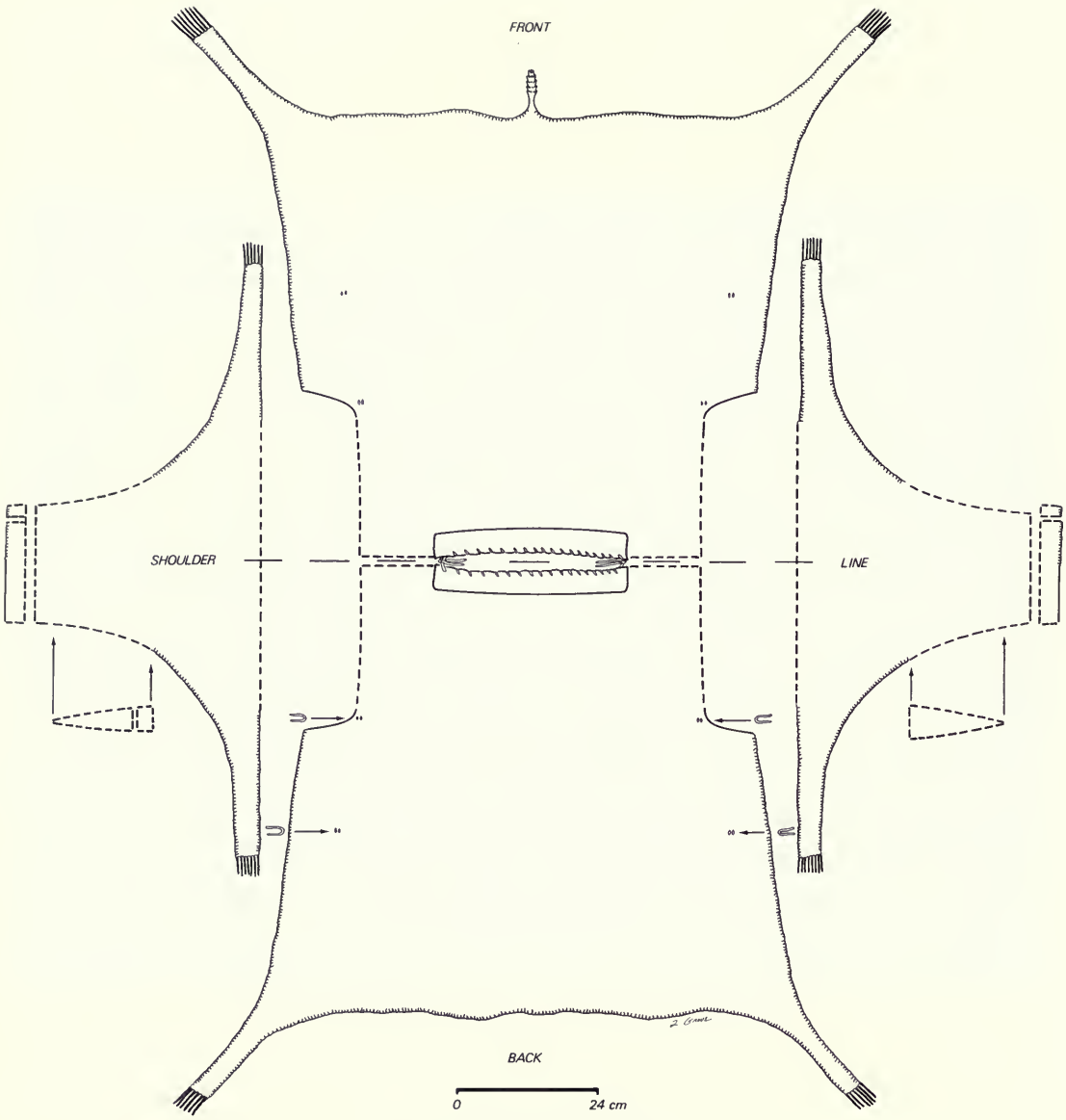

FIG. 25. "War shirt" (51660).

FIG. 26. "War shirt" (back) (51660). (Neg. no. 111734.)

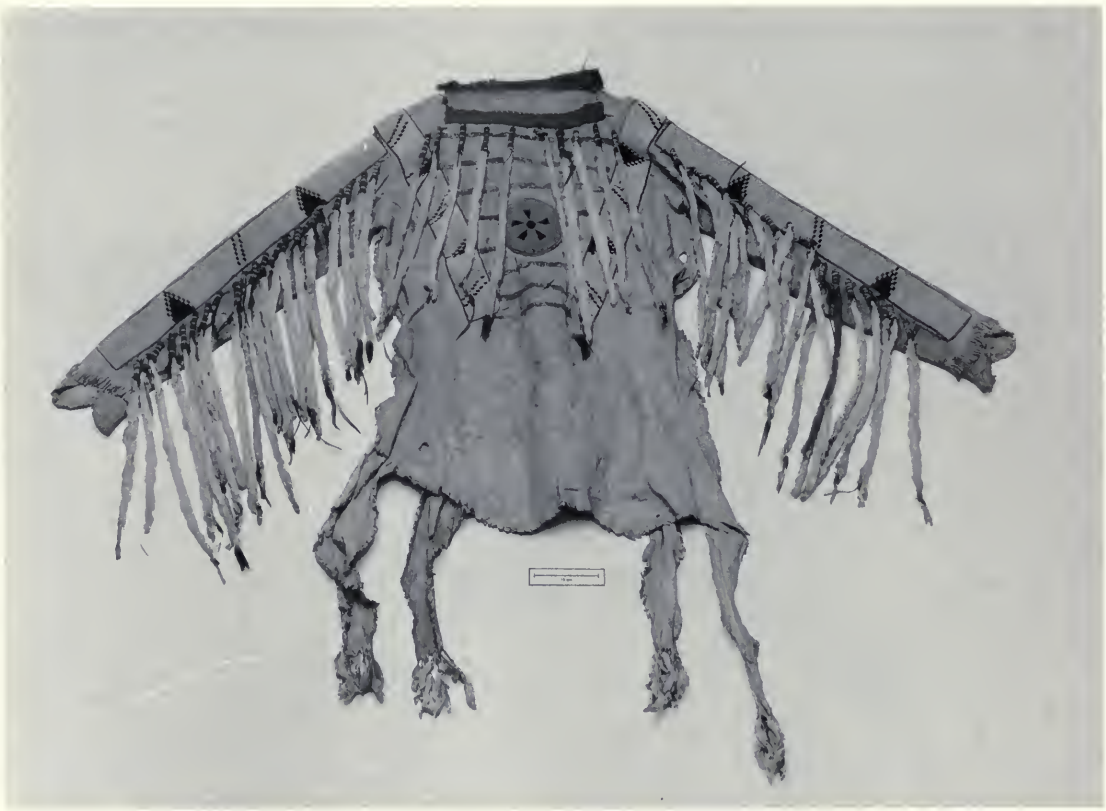

FIG. 27. "War shirt" (back) (51675). (Neg. no. 111730.)

FIG. 28. "War shirt" (back) (51674). (Neg. no. 111727.)

FIG. 29. Child's coat (16232). (Neg. no. 111733.)

FIG. 30. **a,** girl's legging (51581); **b,** woman's legging (16228); **c,** woman's legging (51664); **d,** woman's legging (51649). (Neg. no. 111754.)

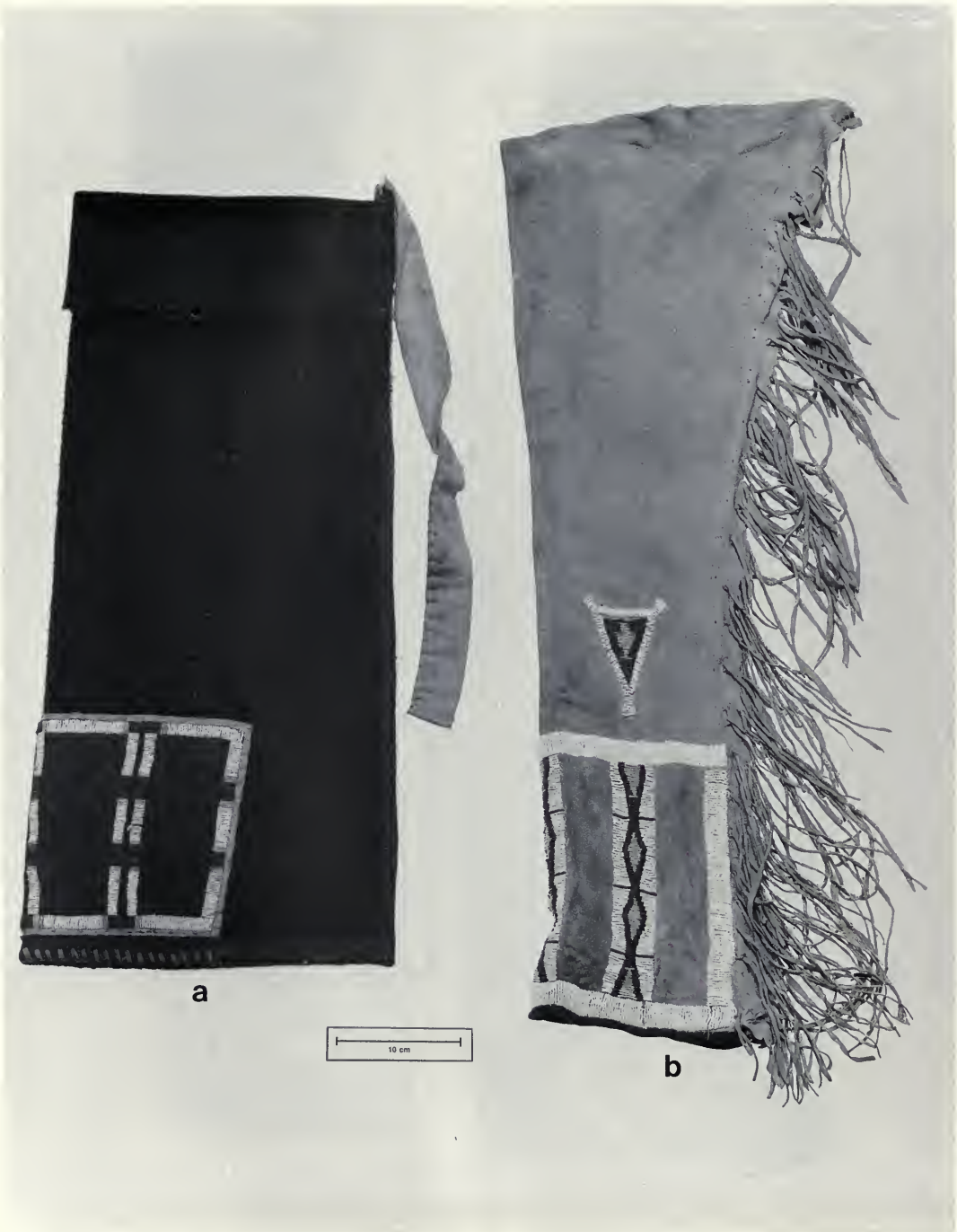

FIG. 31. **a,** man's legging (16225); **b,** man's legging (51570). (Neg. no. 111755.)

FIG. 32. **a,** man's legging (51646); **b,** man's legging (51612). (Neg. no. 111756.)

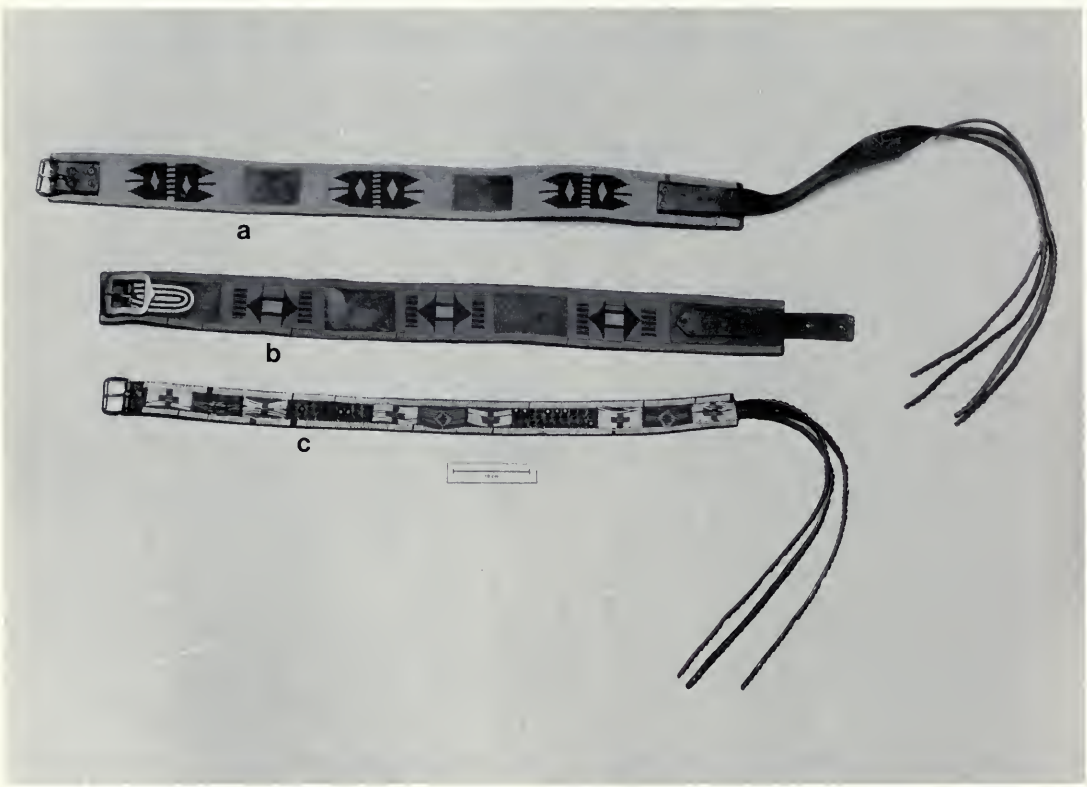

FIG. 33. **a**, belt (51573); **b**, woman's belt (51630); **c**, woman's belt (51622). (Neg. no. 111736.)

FIG. 34. **a,** child's legging (16210); **b,** deerskin armband (51652); **c,** armband (51648); **d,** moccasin upper (16238); **e,** moccasin upper (16239). (Neg. no. 111757.)

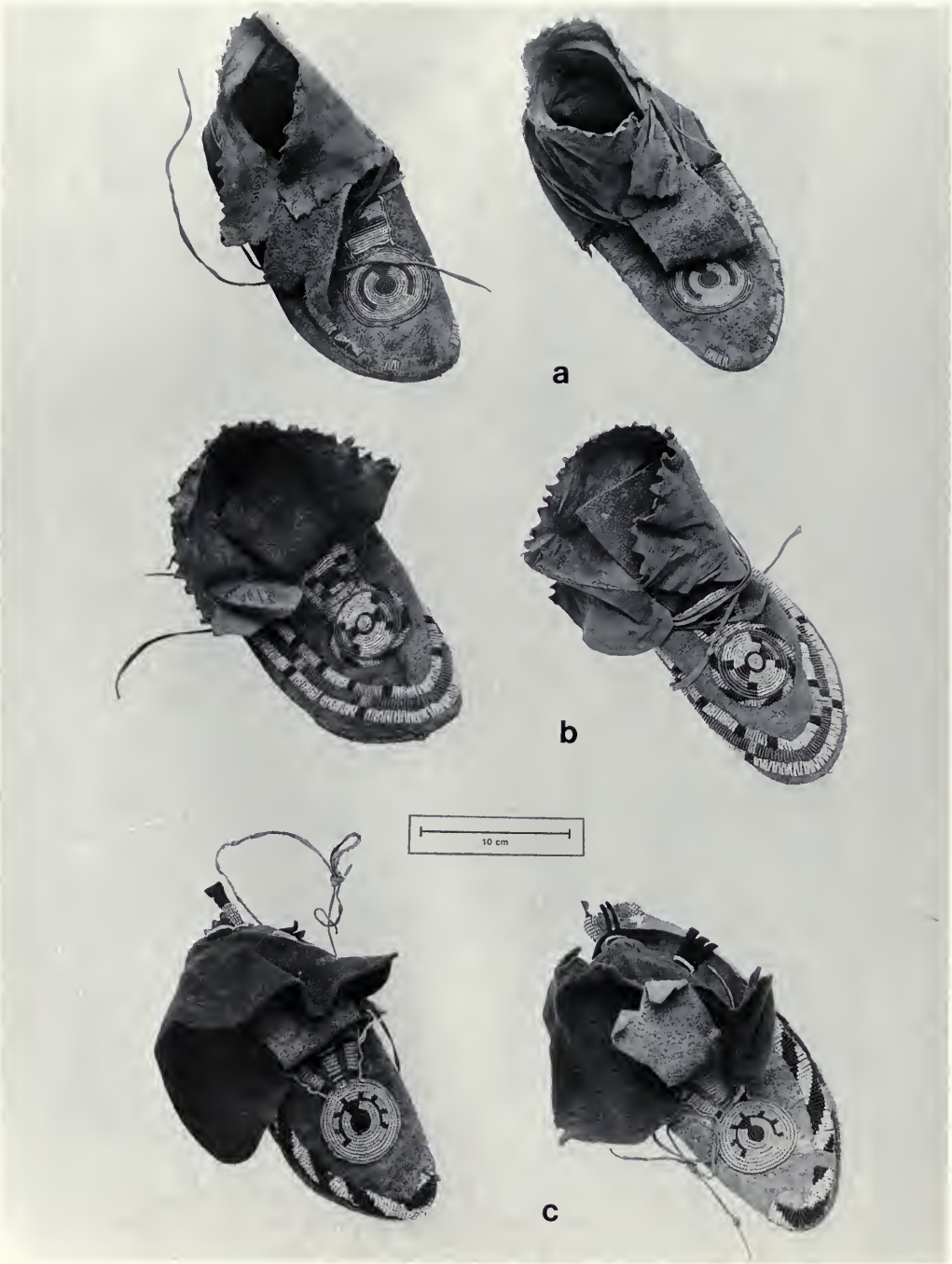

FIG. 35. **a,** moccasins (51694); **b,** moccasins (51608); **c,** moccasins (16219). (Neg. no. 111758.)

FIG. 36. **a,** moccasins (51587); **b,** moccasins (51586); **c,** moccasins (51588). (Neg. no. 111753.)

FIG. 37. **a,** moccasins (51569); **b,** moccasins (51627); **c,** moccasins (16231). (Neg. no. 111759.)

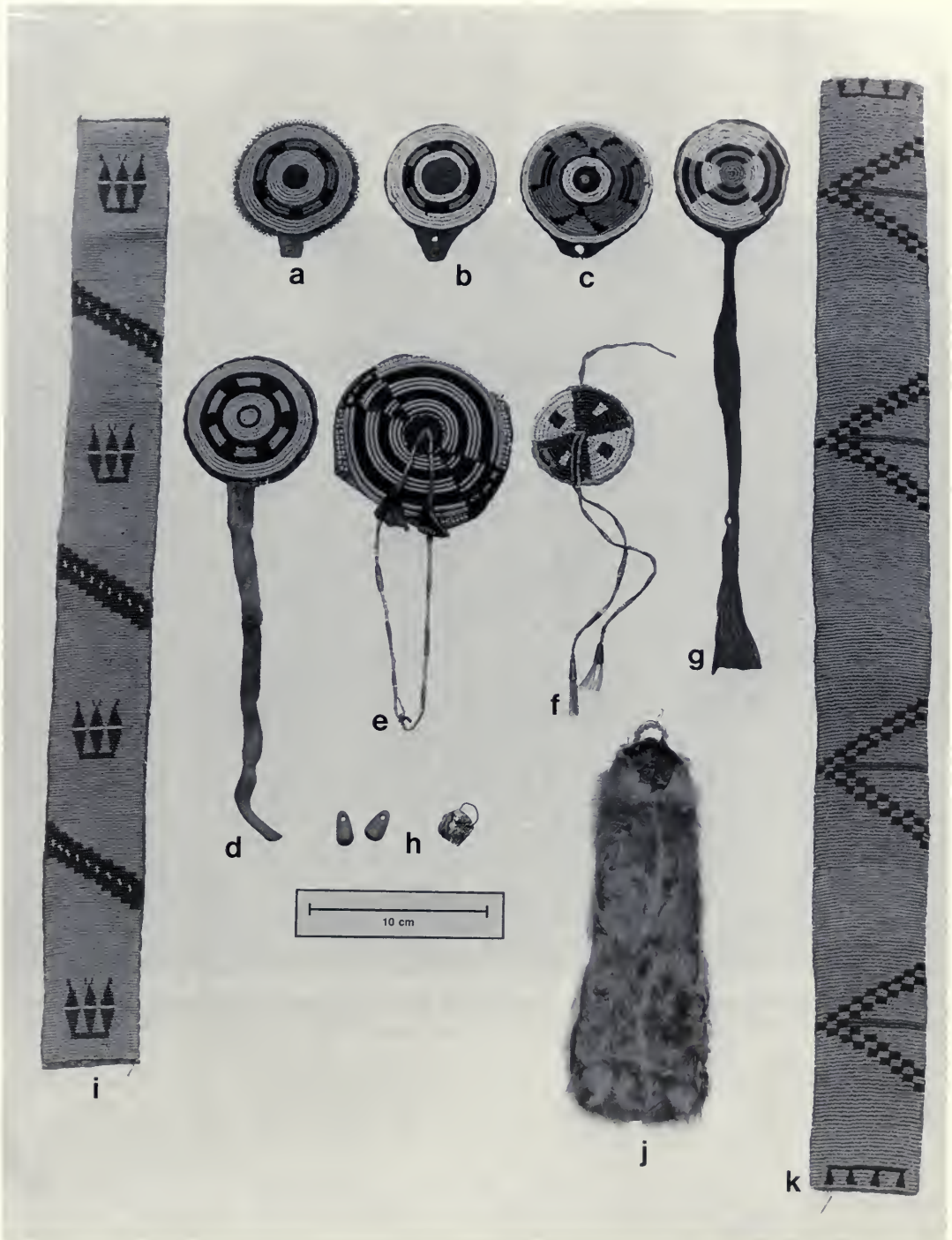

FIG. 38. **a,** rosette (51655); **b,** rosette (16177); **c,** rosette (16162); **d,** rosette (51576); **e,** rosette (15905); **f,** rosette (16056); **g,** rosette (16167); **h,** earrings (51602); **i,** strip for shirt or leggings (51564); **j,** gopher skin (51671); **k,** strip for shirt or leggings (51656). (Neg. no. 111762.)

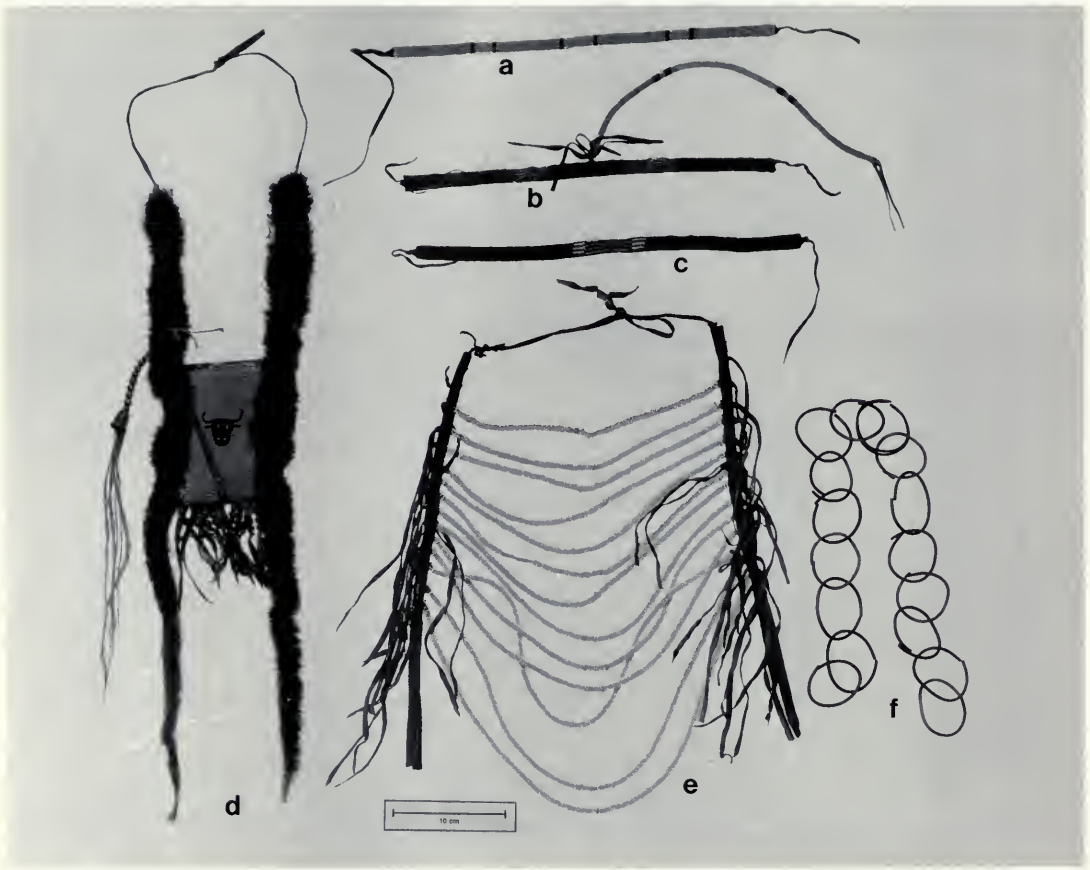

FIG. 39. **a,** man's necklace (51567); **b,** man's necklace with tweezers (51641); **c,** man's necklace (51638); **d,** hand mirror with case (16222); **e,** breast ornament (51615); **f,** brass bracelets (16163). (Neg. no. 111763.)

FIG. 40. **a,** pipe (51609); **b,** "Chief Red Crow's pipe" (51594); **c,** pipe (51624); **d,** "old ceremonial pipe" (51632). (Neg. no. 111764.)

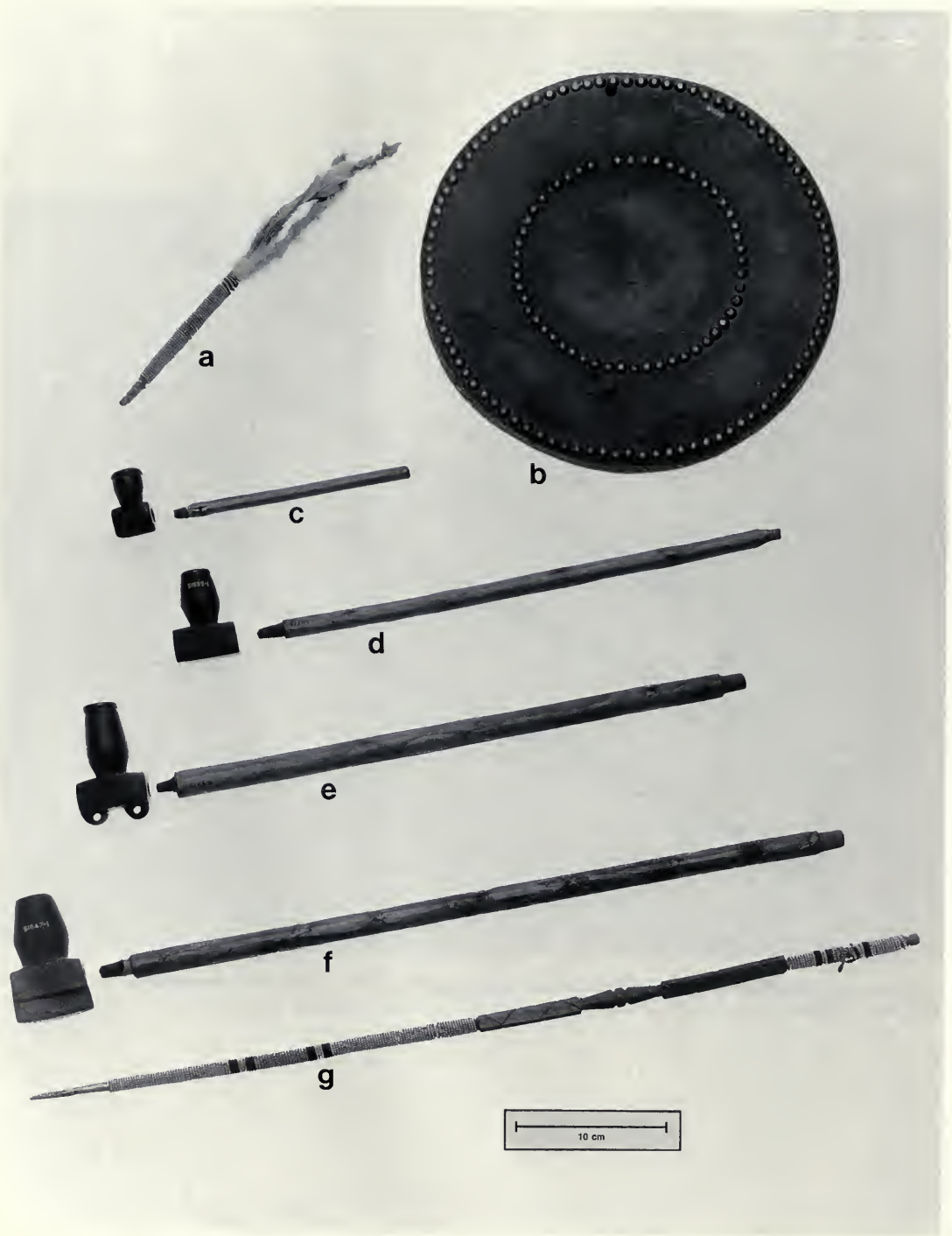

FIG. 41. **a**, pipe tamper (51643); **b**, tobacco board (51580); **c**, pipe (51645); **d**, pipe (51595); **e**, pipe (51568); **f**, pipe (51647); **g**, pipe tamper (51679). (Neg. no. 111760.)

FIG. 42. **a**, pipe bag (51565); **b**, pipe bag (51589). (Neg. no. 111761.)

FIG. 43. **a**, pipe bag (51614); **b**, pipe bag (16221); **c**, pipe bag (51606). (Neg. no. 111766.)

FIG. 44. **a,** pipe bag (51617); **b,** pipe bag (51592). (Neg. no. 111765.)

FIG. 45. **a,** medicine rattle (16230); **b,** rattle (51621); **c,** rattle (51621); **d,** drum stick/rattle (51685). (Neg. no. 111768.)

FIG. 46. **a,** drum and stick (51650); **b,** drum (16227). (Neg. no. 111725.)

FIG. 47. Medicine drum (51683). (Neg. no. 111724.)

FIG. 48. Medicine drum (51683).

FIG. 49. Medicine drum and stick (51631). (Neg. no. 111726.)

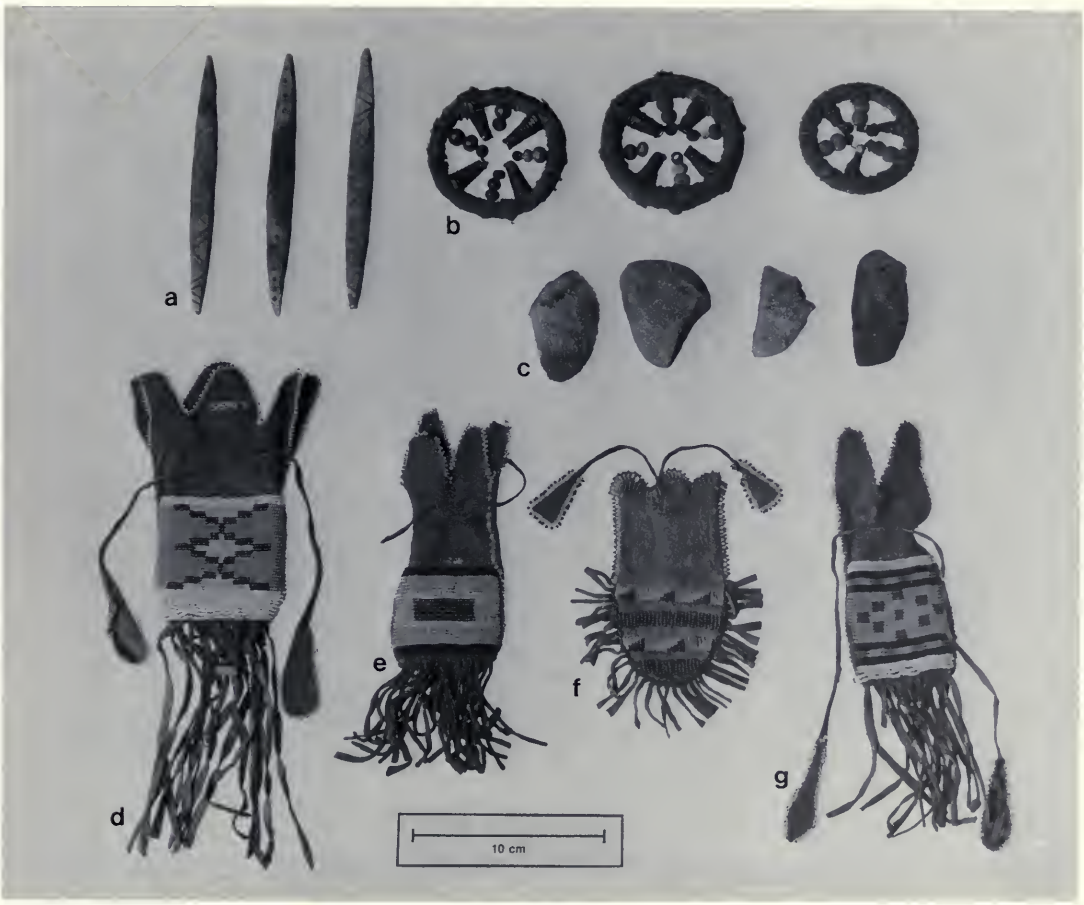

FIG. 50. **a,** stick dice (51654); **b,** hoops for hoop-and-pole game (51642); **c,** paint brushes (51582); **d,** paint bag (51590-3); **e,** paint bag (16205); **f,** paint bag (51577-2); **g,** paint bag (51640). (Neg. no. 111767.)

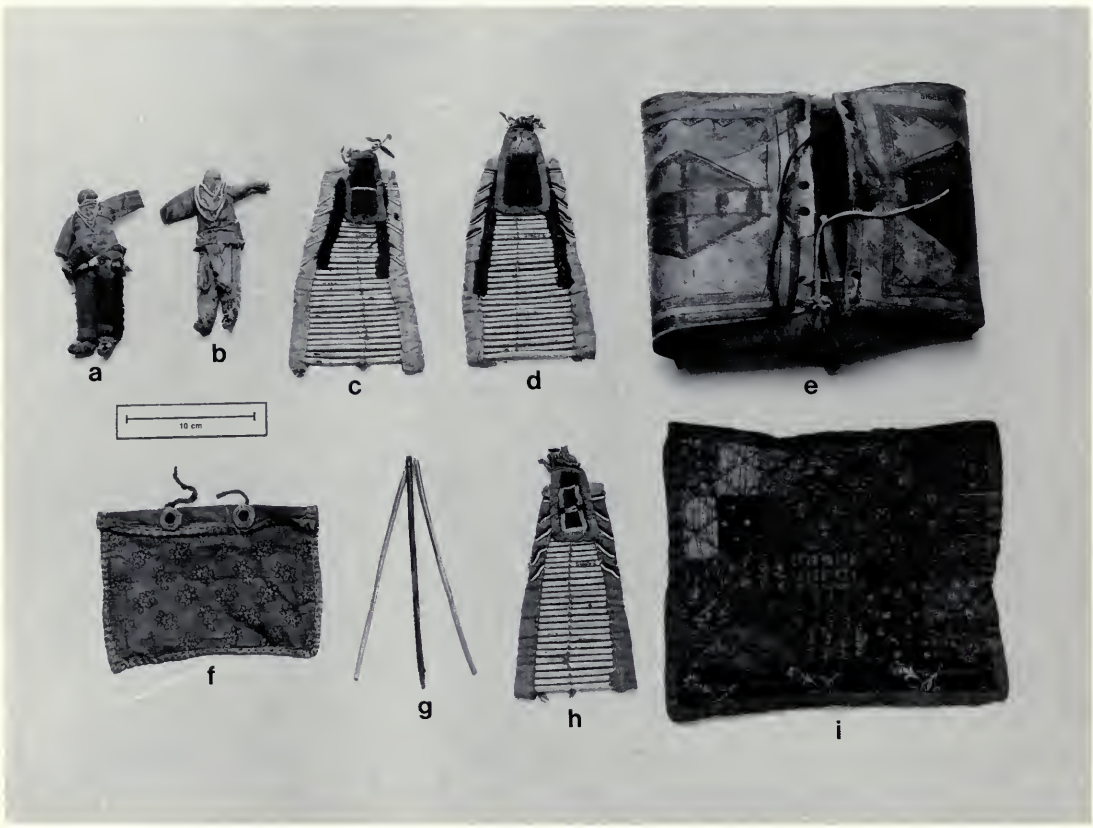

FIG. 51. **a,** doll (51625-36); **b,** doll (51625-25); **c,** backrest (51625-3); **d,** backrest (51625-6); **e,** parfleche (51625-1); **f,** robe (51625-35); **g,** three-pole backrest stand (51625-31); **h,** backrest (51625-2); **i,** quilted blanket (51625-17). (Neg. no. 111770.1.)

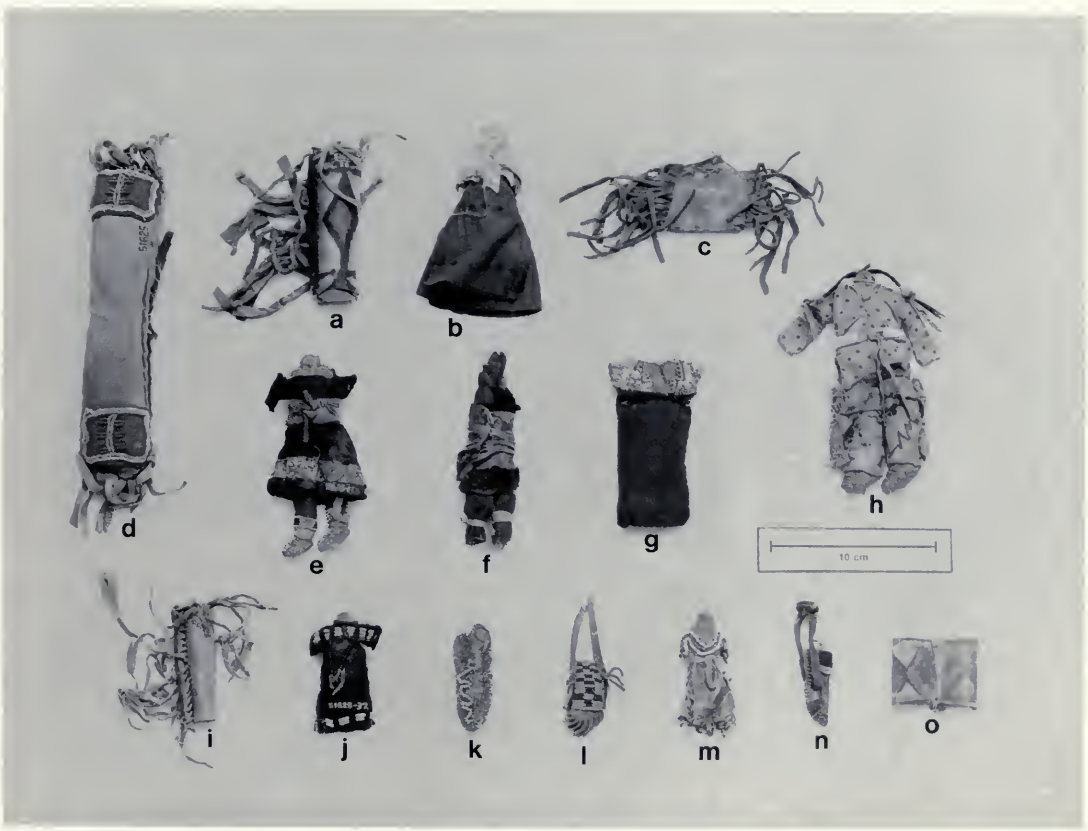

FIG. 52. **a,** Sun Dance bundle case (51625-26); **b,** doll (51625-12); **c,** saddle bag (51625-22); **d,** clothes bag (51625-5); **e,** doll (51625-11); **f,** doll (51625-27); **g,** pillow (51625-15); **h,** doll (51625-13); **i,** Sun Dance bundle case (51625-21); **j,** doll (51625-37); **k,** doll (51625-30); **l,** pouch (51625-20); **m,** doll (51625-23); **n,** knife sheath (51625-28); **o,** miniature parfleche (51625-24). (Neg. no. 111770.)

FIG. 53. Painting on cotton cloth (51678). (Neg. no. 111738.)

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